96-205

COAL SLURRY PIPELINES

HEARING

BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE

OF THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

H.R 6879

A BILL TO ESTABLISH A PROCEDURE FOR THE CERTIFICATION AND REGULATION OF COAL PIPELINE CARRIERS, TO PROVIDE FOR THE REGULATION BY THE FEDERAL ENERGY REGULATORY COMMISSION OF CERTAIN PRICES OF PIPELINE-TRANSPORTED COAL, AND FOR OTHER PURPOSES

AUGUST 28, 1980

Serial No. 96–205

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COAL SLURRY PIPELINES

THURSDAY, AUGUST 28, 1980

House of Representatives,
Subcommittee on Transportation and Commerce,
Committee on Interstate and Foreign Commerce,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room 2237, Rayburn House Office Building, Hon. James J. Florio, chairman, presiding.

Mr. **Florio**. The subcommittee will come to order.

Today we will be considering the Coal Pipeline Act of 1980. This legislation would grant eminent domain authority to private coal slurry pipeline companies and provide for their certification by the Interstate Commerce Commission.

I and the members of the committee not only are concerned about potential environmental problems associated with coal pipelines. These pipelines may need large quantities of water from areas where water is already scarce. There is also the serious problem of water disposal after the coal has been transported. This contaminated water may present a threat to the environment unless disposed of properly. This is the Resource Conservation Recovery Act, which is the statutory scheme for the disposal of hazardous wastes, and is a matter of jurisdiction of this committee.

I am also concerned about insuring fair and effective competition among transportation modes. There are those who believe our already financially weak railroads may be further weakened by construction of coal slurry pipelines. This concern is of particular importance if railroads are to remain tightly regulated and prevented from adjusting their rates and services in reaction to the marketplace.

The Coal Pipeline Act has been reported out of both the Interior and Public Works Committees and has received a rule. If the environmental problems can be worked out, coal slurry pipleines represent a potential technological innovation of great value, but we must consider the effect on competing modes of transporting coal.

I would like to ask at this point if the ranking minority member, Mr. Madigan, would have anything to say before calling our first witness?

Mr. **Madigan**. No, Mr. Chairman, we have many witnesses and a meeting of the full Commerce Committee this morning, which you and I should attend. So, I prefer to start.

Mr. **Florio**. Mr. Matsui.

Mr. **Matsui**. No, thank you.

Mr. Flori. Without objection, the text of H.R. 6879 will be printed at this point in the record. Additional bills that will be considered in whole or in part during the hearing are as follows: H.R. 4370, introduced by Mr. Eckhardt on June 7, 1980; and H.R. 7982, introduced by Mr. Udall on August 20, 1980.

[Testimony resumes on p. 53.]

[The text of H.R. 6879 follows:]

96TH CONGRESS
2D SESSION

H. R. 6879

To establish a procedure for the certification and regulation of coal pipeline carriers, to provide for the regulation by the Federal Energy Regulatory Commission of certain prices of pipeline-transported coal, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 19, 1980

Mr. STAGGERS introduced the following bill; which was referred jointly to the Committees on Interior and Insular Affairs, Public Works and Transportation, and Interstate and Foreign Commerce

---

A BILL

To establish a procedure for the certification and regulation of coal pipeline carriers, to provide for the regulation by the Federal Energy Regulatory Commission of certain prices of pipeline-transported coal, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Coal Pipeline Act of 1980".

FINDINGS

SEC. 2. The Congress finds and declares that—

(1) the increased use of domestic coal to create electrical and other forms of energy promotes the national interest by conserving oil and natural gas resources;

(2) use of domestic coal resources may be facilitated by the construction of pipelines to transport coal from the mine to the consumer;

(3) the national interest may, in some situations, be facilitated by authorizing pipeline carriers of coal to obtain rights-of-way across private lands;

(4) regulation of coal transportation by pipeline must be coordinated with existing transportation regulations and be in accordance with national transportation policy; and

(5) the provisions of this Act and the amendments made by this Act should not affect the regulation of water rights by the States.

DEFINITIONS

SEC. 3. As used in this Act—

(1) The term "coal pipeline" means any pipeline system for the transportation of coal (or its solid-derived products) from a point outside a State to a point within such State or between two points in a State

through another State. A coal pipeline system includes the line pipe, valves, support structures, and pumping, storage, and terminal units, and similar facilities used or useful in the transportation of coal.

(2) The term "Federal lands" means lands owned by the United States, other than lands which are held in trust for an Indian or Indian tribe. Such term does not include any lands owned by an Indian or Indian tribe subject to a restraint against alienation imposed by the United States.

(3) The term "right-of-way" means an interest in land (including an easement, lease, permit, or license to occupy, use, or traverse lands), that is necessary for the construction, operation, maintenance, or extension of a coal pipeline.

TITLE I—RIGHTS-OF-WAY

AUTHORITY OF THE SECRETARY OF THE INTERIOR

SEC. 101. (a) Except as provided in sections 103 and 104 of this Act, the Secretary of the Interior, after consultation with the head of any Federal agency administering any Federal lands, may grant or renew rights-of-way over, under, upon, or through such Federal lands for the construction, operation, maintenance, or extension of coal pipelines. The Secretary of the Interior shall enter into interagency agreements with the heads of all other Federal agencies administering

Federal lands for the purpose of avoiding duplication, assigning responsibility, expediting review of applications for rights-of-way under this section, issuing joint regulations, and assuring a decision based upon a comprehensive review of all factors involved in any application for a right-of-way under this section. Each agency head shall administer and enforce the provisions of this title, appropriate regulations, and the terms and conditions of rights-of-way insofar as they involve Federal lands under the agency head's jurisdiction.

(b) Notwithstanding any other provision of law relating to any Federal lands, rights-of-way over, under, upon, or through Federal lands for the construction, operation, maintenance, or extension of coal pipelines may be granted or renewed after the date of enactment of this Act only in accordance with this title.

APPLICABLE REQUIREMENTS CONCERNING FEDERAL LANDS

SEC. 102. (a) A right-of-way granted or renewed by the Secretary of the Interior under section 101 of this Act shall be granted or renewed in accordance with the conditions, requirements, and other provisions set forth in the Federal Land Policy and Management Act of 1976 (Public Law 94-579), except that in applying such conditions, requirements, or provisions to a right-of-way granted or renewed under such section, any reference to the term "public lands" shall be deemed to be a reference to the term "Federal lands" as defined in section 3 of this Act.

(b) Each right-of-way granted or renewed by the Secretary of the Interior under section 101 of this Act shall contain such other terms and conditions as the Secretary of the Interior considers necessary to carry out the purposes of this Act and the rules and regulations issued under this Act and to protect the public interest in the lands traversed by the right-of-way and the lands adjacent to the right-of-way.

EXISTING RIGHTS-OF-WAY AND PENDING PROCEEDINGS

SEC. 103. (a) Nothing in this title shall affect any right-of-way for a coal pipeline over, under, upon, or through Federal lands if such right-of-way was granted before the date of enactment of this Act, except that such right-of-way may be renewed only in accordance with this title.

(b)(1) The granting and administration of any right-of-way over, under, upon, or through Federal lands pursuant to an application or other request which—

(A) was made under title V of the Federal Land Policy and Management Act of 1976 (Public Law 94–579) or under any other authority of law; and

(B) was not finally disposed of before the date of enactment of this Act,

shall be governed by such title V or other authority of law, as the case may be. The provisions of this title shall not affect any proceedings with respect to any such application or other request.

(2) The provisions of this title shall not affect any civil action commenced prior to the date of enactment of this Act.

ENVIRONMENTALLY AND HISTORICALLY SIGNIFICANT AREAS

SEC. 104. No right-of-way may be granted under section 101 of this Act if such right-of-way is over, under, upon, or through any Federal land which is part of a public park, recreation area, wilderness area, or wildlife and waterfowl refuge or any Federal land which is part of a historic site of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, unless (1) there is no feasible and prudent alternative to the grant of such right-of-way, and (2) all possible planning is made to minimize harm to such park, recreational area, wilderness area, wildlife and waterfowl refuge, or historic site resulting from the grant of such right-of-way.

ACQUIRING RIGHTS-OF-WAY OVER NONFEDERAL LANDS

SEC. 105. (a) Subchapter I of chapter 111 of title 49, United States Code, is amended by inserting after section 11108 the following new section:

"§11109. Authority for pipeline carriers of coal to cross rail carrier property

"(a) In this section, the term 'right-of-way' means an interest in land (including an easement, lease, permit, or license to occupy, use, or traverse lands) that is necessary for the construction, operation, maintenance, or extension of a coal pipeline.

"(b)(1) Except as otherwise provided in this section, any pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title may apply to the Commission for approval of the acquisition by such carrier of a right-of-way for the construction and operation of a pipeline over, under, upon, or through any property or facility owned by a rail carrier providing transportation subject to the jurisdiction of the Commission under chapter 105 of this title.

"(2) The Commission shall approve an application of a pipeline carrier of coal under paragraph (1) of this subsection if the Commission determines that—

"(A) the construction and operation of the coal pipeline does not unreasonably interfere with operation of the rail carrier whose property would be crossed;

"(B) the pipeline carrier of coal agrees to pay the rail carrier for the right-of-way provided;

"(C) the proposed acquisition is in the public interest; and

"(D) the terms of the construction and operation (including the amount of payment) are just and reasonable.

"(3) If the carriers are unable to agree on the terms of construction and operation (including the amount of payment), the Commission shall establish just and reasonable terms. In addition, if the Commission finds that the terms agreed upon by the carriers are not just and reasonable, it may condition its approval of the application upon such modification of such terms as it considers necessary and appropriate.

"(c) No person may acquire under this section any right-of-way over, under, upon, or through any land—

"(1) owned by the United States or by any State or any political subdivision thereof;

"(2) held in trust by the United States for an Indian or Indian tribe; or

"(3) owned by a regional or village corporation established under the Alaska Native Claims Settlement Act if such land was transferred to such corporation pursuant to such Act.

"(d) Nothing in this section shall be construed to permit any person (including the Interstate Commerce Commission, any other officer or employee of the United States, or any pipeline carrier of coal) to acquire any right to use or develop water through the acquisition of a right-of-way under this section.

"(e) No right-of-way may be acquired under this section if such right-of-way is over, under, upon, or through any land which is part of a historic site of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, unless (1) there is no feasible and prudent alternative to the acquisition of such right-of-way, and (2) all possible planning is made to minimize harm to such historic site resulting from the acquisition of such right-of-way.".

(b) The table of sections for subchapter I of chapter 111 of title 49, United States Code, is amended by inserting immediately after the item relating to section 11108 the following new item:

"11109. Authority for pipeline carriers of coal to cross rail carrier property.".

TITLE II—CERTIFICATION AND REGULATION

ENTRY AND ABANDONMENT

SEC. 201. (a) Chapter 109 of title 49, United States Code, is amended by adding at the end thereof the following new subchapter:

"SUBCHAPTER III—COAL PIPELINE CARRIERS

"§10941. Authorizing construction and operation of coal pipelines

"(a)(1) Except as provided in this subchapter, a person may acquire, operate, or construct a coal pipeline or an extension of a coal pipeline, or exercise authority under section 11109 of this title to acquire a right-of-way for construction, operation, maintenance, or extension of a coal pipeline, only if—

"(A) an environmental impact statement is prepared with respect to such action under section 10944(h) of this title;

"(B) the person agrees to comply with this subtitle and the regulations of the Commission with respect to pipeline carriers;

"(C) the Commission makes the determinations required under paragraph (2) of this subsection;

"(D) the Office of Rail Public Counsel makes the determinations required under paragraph (3) of this subsection; and

"(E) the issuance of the certificate is approved by the Congress under subsection (d)(2) of this section.

"(2) No certificate to transport coal may be issued under this section to a pipeline carrier unless the Commission determines in writing that—

"(A) the pipeline carrier has the technical and financial capability—

"(i) to construct, operate, and maintain the coal pipeline or extension thereof; and

"(ii) to comply with this subtitle and the regulations of the Commission;

"(B) the coal pipeline or extension thereof is or will be required by the present or future public convenience and necessity;

"(C) the coal pipeline or extension thereof will provide the capacity necessary to fulfill the requirement of a common carrier of coal, taking into account—

"(i) the capacity needed to meet the requirements of coal producers and coal users that intend to use the proposed coal pipeline; and

"(ii) the additional capacity needed to meet the requirements of coal producers and coal users that might reasonably be anticipated to use the proposed coal pipeline;

"(D) the rates to be charged by the pipeline carrier for the transportation of coal will be lower than those which would otherwise be charged by other carriers for the transportation of such coal;

"(E) the coal pipeline will not impair (i) the financial ability of any other carrier to provide transportation, or (ii) the level or type of transportation any such carrier would be able to provide;

"(F) the coal pipeline or extension thereof will assist in meeting coal transportation needs for the attainment of national coal utilization goals in a safe, adequate, economical, and efficient manner;

"(G) existing carriers do not have the ability to meet the transportation needs for the attainment of national coal utilization goals in a safe, adequate, economical, and efficient manner;

"(H) the coal pipeline or extension thereof will not have a substantially detrimental effect on the environment;

"(I) the construction and operation of the coal pipeline or extension thereof will take into account the need for a balance between the energy needs of the area to be benefited by the coal pipeline or extension thereof and the water needs and other impacts on the area from which the coal is to be transported;

"(J) the coal pipeline or extension thereof will not have a substantially detrimental effect on surface or ground water at the point of origin from which the coal is to be transported, at the point of destination to which the coal is to be transported, and at the point of disposal of water utilized in the transportation of the coal;

"(K) the coal pipeline or extension thereof will not disrupt the coal industry in regions of the United States other than the region in which such pipeline will originate; and

"(L) the construction of the coal pipeline or extension thereof will be impeded or delayed unless the authority to acquire rights-of-way is granted to the applicant under section 11109 of this title.

"(3) No certificate to transport coal may be issued under this section to a pipeline carrier unless the Office of Rail Public Counsel, within 45 days after the publication of notice under section 10942(a) of this title, makes an affirmative determination in writing with respect to the matters described in subparagraphs (D), (E), (F), and (G) of this paragraph.

"(b) A person must file an application with the Commission for a certificate to provide transportation of coal as a pipeline carrier under this section. The application must—

"(1) be under oath;

"(2) contain information required by Commission regulations; and

"(3) be served on persons designated by the Commission.

"(c) No certificate may be issued to an applicant under this section for the transportation of coal by coal pipeline until—

"(1) the applicant submits or discloses to the Commission any plan, contract, agreement, or other information which the Commission shall determine is reasonably related to the use, or intended use, of the coal pipeline or extension thereof, including its effect on competition, and which the Commission considers necessary to make a determination with respect to whether such certificate should be issued and the terms and conditions which should be included in the certificate;

"(2) the applicant submits to the Commission a plan for—

"(A) the acquisition of the rights-of-way for the coal pipeline or extension thereof;

"(B) the construction, operation, and maintenance of the coal pipeline or extension thereof; and

"(C) the rehabilitation of such rights-of-way, which shall be in such form and contain such information as the Commission may, by regulation, require; and

"(3) in any case in which the applicant is a partnership, corporation, association, or other business entity, the applicant discloses to the Commission the identity of the participants in the entity and such other information as the Commission considers necessary to make a determination with respect to whether such certificate should be issued and the terms and conditions which should be included in such certificate.

"(d)(1)(A) If the Commission makes the determinations required under subsection (a)(2) of this section and the Office of Rail Public Counsel makes the determinations required under subsection (a)(3) of this section, the Commission shall—

"(i) approve the application as filed; or

"(ii) approve the application with modifications and require compliance with terms and conditions the Commission finds necessary in the public interest.

"(B) If either the Commission or the Office of Rail Public Counsel fails to make any one of its required determinations, the Commission shall deny the application.

"(2)(A) Upon approval of an application by the Commission under paragraph (1)(A) of this subsection, the Commission shall transmit such application to the Congress. Such application shall be deemed approved at the end of the first period of 30 calendar days of continuous session of Congress after such date of transmittal unless either the House of Representatives or the Senate passes a resolution during such period stating that it does not favor such application.

"(B) For purposes of this paragraph—

"(i) continuity of session of Congress is broken only by an adjournment sine die; and

"(ii) the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of the 30-day period.

"(3) Upon approval of an application under paragraph (2) of this subsection, the Commission shall issue to the applicant a certificate describing—

"(A) any rights-of-way the acquisition of which is approved in whole or part by the Commission under section 11109 of this title; and

"(B) the construction or acquisition (or both) and operation approved by the Commission.

"(e) Neither the issuance of a certificate under this section by the Commission nor the designation of a person as a pipeline carrier of coal shall be construed to constitute a finding or evidence that the coal pipeline for which such carrier is issued such certificate is being constructed, operated, maintained, or extended in the public interest under State law or that such carrier is entitled to exercise the power of eminent domain under State law.

"§ 10942. Procedure for authorizing construction and operation of coal pipelines

"(a) Within 30 days after receipt of an application for a certificate to provide transportation of coal by coal pipeline under this subchapter, the Commission shall determine whether the application appears to contain all of the information required for its consideration. If the Commission determines that such information appears to be in the application, the Commission shall, no later than 7 days after making such a determination, publish notice of the application in the Federal Register. The Commission shall further notify the Governor of each State in which the coal pipeline will be located. Each notification shall identify the lands over which the coal pipeline is to be constructed or operated and the water source to be used. If the Commission determines that all of the required information is not in the application, the Commission shall immediately notify the applicant of all the deficiencies in the application and may take no further action with respect to the application until such deficiencies have been remedied.

"(b)(1) Within 10 days after the publication of notice pursuant to subsection (a) of this section, the Commission shall request—

"(A) the Secretary of Transportation to submit findings with respect to matters described in subparagraphs (D), (E), and (F) of section 10941(a)(2) of this title;

"(B) the Secretary of Energy to submit findings with respect to matters described in subparagraphs (F) and (I) of such section; and

"(C) the Secretary of the Interior to submit findings with respect to matters described in subparagraphs (J) and (K) of such section.

"(c) Each applicant for a certificate under this subchapter shall reimburse the Commission for administrative and other costs incurred by the Commission in processing the application in such manner as the Commission shall, by rule, prescribe.

"(d)(1) A certificate to provide transportation of coal by coal pipeline may be issued under this subchapter only after public notice and a public hearing in accordance with this subsection.

"(2) Upon publication of the notice in the Federal Register pursuant to subsection (a) of this section, the Commission shall—

"(A) require the applicant to publish for three consecutive weeks an accurate and understandable summary of the application in a newspaper of general circulation in each county in which the coal pipeline or extension thereof will be located;

"(B) take other reasonable and effective steps to publicize the application; and

"(C) take the necessary steps to notify coal producers and coal users that might want to transport coal in the coal pipeline.

The notice shall, among other things, specify the rights-of-way which will be acquired under section 11109 of this title if such certificate is issued in accordance with such application. The notice shall also indicate that each interested person is entitled to submit comments to the Commissioner with respect to such application.

"(3) The Commission shall promptly hold at least one public hearing with respect to each application submitted under section 10941 of this title in each State in which the coal pipeline or extension thereof proposed in such application will be located. Such hearings shall be at a reasonably convenient site adjacent to the pipeline route. Any interested person may present relevant material at such hearing.

"(4)(A) The Commission shall hold at least one public, formal adjudicatory hearing with respect to each application submitted under section 10941 of this title. Any such hearing shall be conducted in accordance with the provisions of section 554 of title 5. At least one of such adjudicatory hearings shall be held in the District of Columbia.

"(B) The Secretary of Energy, the Secretary of Transportation, the Secretary of the Interior, and the Administrator of the Environmental Protection Agency shall participate in each hearing held under this paragraph and shall submit proposed findings and conclusions, exceptions to the decision or recommended decision, and supporting reasons for the exceptions or proposed findings or conclusions. The head of any other Federal agency may participate in any such hearing and may make the submissions described in the preceding sentence.

"(C) State and local agencies and other interested persons may, upon reasonable application, participate in any hearing held under this paragraph.

"§ 10943. Terms and conditions

"(a) Each certificate issued to a pipeline carrier to provide transportation of coal by coal pipeline under this subchapter shall contain terms and conditions which will—

"(1) minimize damage to scenic and aesthetic values and fish and wildlife habitat and otherwise protect the environment;

"(2) require compliance with applicable air and water quality standards established by or pursuant to applicable Federal or State law;

"(3) require compliance with regulations issued by the Secretary of Transportation under section 303 of the Coal Pipeline Act of 1980;

"(4) require compliance with State standards for public health and safety, environmental protection, and siting, construction, operation, and maintenance of coal pieplines if such standards are consistent with or more stringent than applicable Federal standards;

"(5) require compliance with such regulations as the Commission shall prescribe to ensure that such carrier, in acquiring land or rights-of-way for construction, operation, maintenance, or extension of the coal pipeline, provides the notice and compensation to persons whose land or rights-of-way are to be so acquired in the same manner and to the same extent as a Federal agency provides notice and compensation to a displaced person under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970;

"(6) require the revegetation, restoration, and curtailment of erosion of the surface of any right-of-way acquired for the coal pipeline; and

"(7) carry out the purposes of this subchapter and the rules and regulations issued under this subchapter.

"(b) Each certificate issued to a pipeline carrier to provide transportation of coal by coal pipeline under this subchapter shall contain such terms and conditions as the Commission considers necessary to—

"(1) protect the public health and safety;

"(2) protect property;

"(3) protect the interests of individuals who live in the general area traversed by the coal pipeline and rely on the resources of such area;

"(4) require location of the right-of-way along a route that will cause the least damage to the environment, taking into consideration feasibility and other relevant factors; and

"(5) otherwise protect the public interest.

"(c) The Commission shall require as a condition of issuance of a certificate under this subchapter that—

"(1) any coal pipeline for which such certificate is issued be constructed, operated, maintained, and extended as a common carrier, in fact, fully subject to rate and charge regulation by the Commission under this title; and

"(2) for purposes of such rate and charge regulation, the cost of constructing such pipeline and auxiliary facilities not exceed the maximum allowable construction cost established by the Commission for such pipeline and facilities, exclusive of any cost increase that results from (A) subsequent inflation, or (B) an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character.

"(d)(1) If the Commission determines, in the course of the proceedings for issuance of a certificate under this subchapter, that the right-of-way over, under, upon, or through which the coal pipeline is to be constructed, operated, maintained, or extended may be utilized for additional uses compatible with operations of the coal pipeline, the Commission may require as a condition to the grant of such certificate that the right-of-way for the coal pipeline be subject to such compatible uses.

"(2) The Commission shall require the additional use described in paragraph (1) of this subsection only if the Commission, by rule—

"(A) finds—

"(i) the additional use is a compatible use; and

"(ii) conditioning the issuance of the certificate upon the availability of the right-of-way for the additional use is in the public interest; and

"(B) establishes reasonable provisions for the payment of compensation for the additional use to the person otherwise entitled to the exclusive use.

"(e) The Commission shall issue regulations specifying the extent to which a holder of a certificate to provide transportation of coal by coal pipeline under this subchapter shall be liable to any person whose land is acquired for construction, operation, maintenance, or extension of the coal pipeline for damage or injury incurred by such person caused by the use and occupancy of such land. The regulations shall also specify the extent to which such holder shall indemnify or hold harmless such person for liabilities, damages, or claims caused by the use and occupancy of such land.

"(f) The Commission shall require as a condition of issuance of a certificate to provide transportation of coal by coal pipeline under this subchapter that the pipeline carrier, upon application of any party tendering coal for transportation, shall construct, maintain, and operate upon reasonable terms a feeder or distribution line to connect the source of such tendered coal with the coal pipeline in any case in which such connection is reasonably practicable and can be constructed with safety and will furnish sufficient business to justify its construction, operation, and maintenance. Such feeder or distribution line, at the option of the party applying therefor, shall include any facilities necessary for the delivery of coal to such party in a form and condition suitable for use as fuel without further processing or treatment. If any pipeline carrier of coal holding a certificate issued under section 10941 of this subchapter fails to install and operate any feeder or distribution line upon application in writing by any party, such party may submit a complaint to the Commission. The Commission—

"(i) shall hear and investigate such complaint;

"(ii) shall make a determination with respect to the safety and practicability of such feeder or distribution line and the justification and reasonable compensation for such line; and

"(iii) may issue an order, in accordance with this subtitle, directing such pipeline carrier to comply with the provisions of this section in accordance with such order.

Such order shall be enforced as provided for the enforcement of all other orders by the Commission, other than orders for the payment of money.

"§ 10944. Limitations on issuance of a certificate

"(a) In this section—

"(1) 'antitrust laws' means the Sherman Act (15 U.S.C. 1 et seq.), the Clayton Act (15 U.S.C. 12 et seq.), the Federal Trade Commission Act (15 U.S.C. 41 et seq.), the Wilson Tariff Act (15 U.S.C. 8 et seq.), and the Act of June 19, 1936, chapter 592 (15 U.S.C. 13, 13a, 13b, and 21a).

"(2) 'control' means the power to exercise control by whatever means, and any person who (A) is a director of a carrier or of any other person, or (B) owns in excess of 5 per centum of the voting stock (or any like evidence of participation) of a carrier or of any other person shall be deemed to have the power to exercise control of such carrier or other person, as the case may be.

"(b)(1) The Commission shall not issue any certificate under section 10941 of this subchapter unless it has notified the Attorney General of the United States of the application for such certificate and has received the advice of the Attorney General that such action would not create or maintain a situation inconsistent with the antitrust laws. The Commission shall provide such information as the Attorney General may require to conduct an antitrust review to determine the likely effects upon competition of issuance of such certificate. Any advice under this subsection shall be rendered within a reasonable period of time, but in no event later than 180 days after the date on which the Attorney General receives notification from the Commission. Such advice may include specific findings and recommendations for the inclusion in such certificate of reasonable terms and conditions considered necessary to protect and promote competition.

"(2)(A) The issuance of a certificate under section 10941 of this subchapter shall not be admissible in any way as a defense to any civil or criminal action for violation of the antitrust laws, nor shall it in any way modify or abridge any private right of action under the antitrust laws.

"(B) Nothing in this section shall be construed to bar the Attorney General or the Federal Trade Commission from challenging any anticompetitive situation involved in the operation of a coal pipeline.

"(C) Nothing contained in this section shall impair, amend, broaden, or modify the antitrust laws.

"(c)(1) A pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title may not control, be controlled by, or be under common control with any person that uses or will use coal transported by such pipeline carrier or that supplies coal to the pipeline. No pipeline carrier granted the authority to acquire rights-of-way under section 11109 of this title may control, be controlled by, or be under common control with any such person.

"(2) A pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title may not transport any coal owned, mined, or supplied by such carrier or by a person that controls, is controlled by, or is under common control with such carrier.

"(3)(A) The transportation of coal which a pipeline carrier owns only during shipment or during storage immediately before shipment, for the sole purpose of achieving transportation and storage economies through blending and commingling of coal acquired from several coal producers or for several coal users, may be exempted by the Commission, in accordance with this paragraph, from the prohibitions set forth in paragraphs (1) and (2) of this subsection.

"(B) The Commission may grant an exemption to a pipeline carrier of coal under this subsection for the transportation of coal owned by such carrier only if the Commission determines that the ownership of coal—

"(i) facilitates the achievement of the transportation and storage economies referred to in subparagraph (A) of this paragraph; and

"(ii) will not result in unfair competitive advantages for the pipeline carrier by reason of any differences in the rates charged for the transportation of coal owned by such carrier and coal owned by any other person.

"(C) Any transportation and storage charges which may result from the blending and commingling authorized under this paragraph shall be included in the tariffs filed with the Commission.

"(D) The Commisison shall have the same authority with respect to rate regulation under this title for the transportation of coal pursuant to the exemption contained in this paragraph as the Commission has with respect to the transportation of coal which is not exempted under this paragraph.

"(4) No certificate may be issued under section 10941 of this title to any person that the Commission determines will not comply with the provisions and limitations set forth in this subsection.

"(d)(1) Any person proposing to apply for a certificate under section 10941 of this title may, prior to submitting an application for such certificate, petition the Commission for a determination that such person will not violate the prohibitions set forth in subsection (b) of this section. Such petition shall provide such information concerning ownership, management, and control of the person proposing to apply for such certificate, and such information concerning the ownership, management, and control of persons who will supply and use the coal to be transported by the proposed coal pipeline as the Commission considers necessary or pertinent.

"(2) Within 7 days of receipt of a petition pursuant to paragraph (1) of this subsection, the Commission shall publish notice of the petition in the Federal Register and shall notify the Attorney General of its consideration of such petition.

"(3) Within 120 days of receipt of a petition pursuant to paragraph (1) of this subsection, the Commission, in consultation with the Attorney General, shall make a preliminary determination with respect to whether the petitioner would be in compliance with the prohibitions set forth in subsection (b) of this section.

"(4) Any interested person or the petitioner may submit written comments within 60 days of the publication of the petition in the Federal Register.

"(5) In determining whether a person will violate the prohibitions set forth in subsection (b) of this section, the Commission shall not make a determination inconsistent with the preliminary determination made pursuant to paragraph (3) of this subsection unless the Commission finds, based on the record as a whole, substantial evidence to rebut such preliminary determination.

"(e) The Commission shall not approve an application for a certificate to provide transportation of coal by coal pipeline under section 10941 of this title which proposes to use ground water for the purpose of transporting coal unless—

"(1) the United States Geological Survey has, upon the request of any interested State, conducted a comprehensive study of the use of such ground-water source over the life of the coal pipeline considering whether such pipeline or the cumulative effect of such coal pipeline and other uses of the same ground-water aquifer will cause adverse impacts upon the quality and quantity of such water in surrounding areas or adjoining States;

"(2) any interested State has had an opportunity to make its views known to the United States Geological Survey in connection with any study conducted under paragraph (1) of this subsection, and such views have been given full consideration by the Survey;

"(3) the findings of any study by the United States Geological Survey under paragraph (1) of this subsection have been made available to all interested States; and

"(4) any State which the Commission, in consultation with the Secretary of the Interior and after consideration of the findings of any study conducted by the United States Geological Survey under paragraph (1) of this subsection, determines to have a valid legal interest in the ground water to be used and beneath whose lands any part of the ground-water aquifer constituting any part of the source of ground water to be used lies has certified to the Commission such State's approval of the use of such ground water for the purpose of transporting coal.

"(f) The Commission shall not approve an application for a certificate to provide transportation of coal by coal pipeline under section 10941 which proposes to use surface waters for the purpose of transporting coal unless the applicant has obtained any necessary permit for the use of such waters from the State having jurisdiction over such waters.

"(g)(1) No certificate to provide transportation of coal by coal pipeline may be issued under section 10941 of this subchapter unless the applicant files with the Commission a bond, insurance policy, or other type of security approved by the Commission. The security must be sufficient to pay for each final judgment against the carrier for bodily injury to, or death of, an individual resulting from the negligent construction, operation, or maintenance of the coal pipeline or for loss or damage to property, or both.

"(2) The Commission may determine the type and amount of security filed with it under this section.

"(h) No certificate to provide transportation of coal by coal pipeline may be issued under section 10941 of this title unless an environmental impact statement which meets the requirements for statements prepared under section 102(2)(C) of the National Environmental Policy Act of 1969 (42

U.S.C. 4332(2)(C)) is prepared and published in the Federal Register.

"§ 10945. Authorizing abandonment and discontinuance of coal pipelines

"(a) A pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title may—

"(1) abandon any part of its coal pipeline; or

"(2) discontinue the operation of all coal pipeline transportation over any part of its coal pipeline,

only if the Commission finds that the present or future public convenience and necessity require or permit the abandonment or discontinuance or that water used for transporting the coal has been reduced by circumstances beyond the control of the carrier to a level which is below the level sufficient to continue the transportation of coal.

"(b)(1) A proceeding to grant authority under subsection (a) of this section begins on application filed with the Commission. If the Commission—

"(A) finds public convenience and necessity, it shall—

"(i) approve the application as filed; or

"(ii) approve the application with modifications and require compliance with conditions that the Commission finds are required by public convenience and necessity; or

"(B) fails to find public convenience and necessity,

it shall deny the application.

"(2) On approval, the Commission shall issue to the coal pipeline carrier a certificate describing the abandonment or discontinuance approved by the Commission.

"(c) The abandonment or discontinuance may take effect on the 60th day after the issuance of the certificate.

"§ 10946. Filing and procedure for applications to abandon or discontinue

"(a)(1) An application for a certificate of abandonment or discontinuance under section 10945 of this title, and a notice of intent to abandon or discontinue, must be filed with the Interstate Commerce Commission at least 60 days before the day on which the abandonment or discontinuance is to become effective.

"(2) When a pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title files an application and notice of intent, the notice shall include—

"(A) an accurate and understandable summary of the carrier's application and the reasons for the proposed abandonment or discontinuance; and

"(B) a statement indicating that each interested person is entitled to recommend to the Commission that it approve, deny, or take other action concerning the application.

"(3) The pipeline carrier shall—

"(A) send by certified mail a copy of the notice of intent to the chief executive officer of each State that would be directly affected by the proposed abandonment or discontinuance;

"(B) publish a copy of the notice for 3 consecutive weeks in a newspaper of general circulation in each county in which any part of the coal pipeline is located;

"(C) mail a copy of the notice, to the extent practicable, to all shippers that have made significant use (as designated by the Commission) of the coal pipeline during the 12 months preceding the filing of the application; and

"(D) attach to the notice filed with the Commission an affidavit certifying the manner in which subparagraphs (A), (B), and (C) of this paragraph have been satisfied.

"(b) The burden is on the person applying for the certificate to prove that the present or future public convenience and necessity require or permit the abandonment or discontinuance.

"(c)(1) During the period between the date the application is filed through the day immediately before the date proposed in the application that the abandonment or discontinuance become effective, the Commission shall, on petition, and may, on its own initiative, begin an investigation to assist it in determining what disposition to make of the application. The order to conduct the investigation must be served on any affected pipeline carrier of coal not later than the 5th day before the proposed effective date of the abandonment or discontinuance. An investigation may include public hearings at any location reasonably adjacent to the coal pipeline involved in the abandonment or discontinuance. The hearing may be held on the request of an interested party or on the initiative of the Commission.

"(2) If an investigation is not conducted, the Commission shall act under section 10945(b) of this title by the last day of the period referred to in paragraph (1) of this subsection. If an investigation is to be conducted, the Commission shall postpone the proposed effective date of any part of the abandonment or discontinuance. The postponement shall be for a reasonable period of time necessary to complete the investigation.

"§10947. Coal pipeline transfer, merger, and acquisition transactions

"(a) Any pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title shall, prior to—

"(1) transferring any coal pipeline or other property to any person;

"(2) consolidating or merging its properties with the properties of any other such pipeline carrier;

"(3) purchasing, leasing, or contracting to operate any properties of any other such pipeline carrier; or

"(4) acquiring control of any other such pipeline carrier through ownership of its stock or otherwise,

submit an application to the Commission requesting the approval and authorization of the Commission, pursuant to subsection (b) of this section, to carry out such transaction. No such pipeline carrier shall enter into any transaction described in the preceding sentence in the absence of such approval and authorization.

"(b) Upon receipt of an application setting forth a proposed transaction pursuant to subsection (a) of this section, the Commission shall determine, after an opportunity for an agency hearing on the record, whether such transaction is consistent with the public interest. If the Commission determines that, subject to such terms and conditions and such modifications as it finds just and reasonable, such transaction is consistent with the public interest, the Commission shall enter an order approving and authorizing such transaction, upon such terms and conditions and with such modifications.

"(c) In making its determination with respect to a proposed transaction under subsection (b) of this section, the Commission shall give weight to the following considerations, among others:

"(1) The effect of the proposed transaction upon adequate transportation service to the public.

"(2) The effect upon the public interest of the inclusion, or failure to include, other coal pipelines located in the area involved in the proposed transaction.

"(3) The total fixed charges resulting from the proposed transaction.

"(4) The interests of the pipeline carrier employees affected.

"§ 10948. Employee protective arrangements in coal pipeline carrier abandonments and mergers

"When a pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title is involved in a transaction for which approval is sought under section 10945 or 10947 of this title, the Interstate Commerce Commission shall require the carrier to provide a fair arrangement at least as protective of the interests of employees who are affected by the transaction as the terms imposed under section 11347 of this title before February 5, 1976, and the terms established under section 565 of title 45. Notwithstanding this subtitle, the arrangement may be made by the pipeline carrier and the authorized representative of its employees. The arrangement and the order approving the transaction must require that the employees of the affected pipeline carrier will not be in a worse position related to their employment as a result of the transaction during the 4 years following the effective date of the final action of the Commission (or if an employee was employed for a lesser period of time by the carrier before the action became effective, for that lesser period).

"§ 10949. Coal pipeline carrier use of American materials

"(a) Except as provided in subsection (b) of this section, any pipeline carrier providing transportation of coal under a certificate issued under section 10941 of this title shall purchase only—

"(1) unmanufactured articles, materials, and supplies which have been mined or produced in the United States; and

"(2) manufactured articles, materials, and supplies which have been manufactured in the United States substantially all from articles, materials, and supplies mined, produced, or manufactured, as the case may be, in the United States.

"(b) The Interstate Commerce Commission may, upon application of a pipeline carrier, exempt such carrier from the requirements of subsection (a) of this section with respect to the purchase of particular articles, materials, or supplies, if the Commission determines that—

"(1) imposing such requirements with respect to such articles, materials, or supplies is inconsistent with the public interest;

"(2) the cost of imposing such requirements with respect to such articles, materials, or supplies is unreasonable; or

"(3) such articles, materials, or supplies or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.".

(b) The table of sections for chapter 109 of title 49, United States Code, is amended by adding at the end thereof the following:

"SUBCHAPTER III—COAL PIPELINE CARRIERS

"10941. Authorizing construction and operation of coal pipelines.
"10942. Procedure for authorizing construction and operation of coal pipelines.
"10943. Terms and conditions.
"10944. Limitations on issuance of a certificate.
"10945. Authorizing abandonment and discontinuance of coal pipelines.

"10946. Filing and procedure for applications to abandon or discontinue.
"10947. Coal pipeline transfer, merger, and acquisition transactions.
"10948. Employee protective arrangements in coal pipeline carrier abandonments and mergers.
"10949. Coal pipeline carrier use of American materials.".

DEFINITION

SEC. 202. Section 10102 of title 49, United States Code, is amended by redesignating paragraphs (4) through (28) (and all references thereto) as paragraphs (5) through (29), respectively, and inserting after paragraph (3) the following new paragraph:

"(4) 'coal pipeline' means any pipeline system for the transportation of coal (or its solid-derived products) from a point outside a State to a point within such State or between two points in a State through another State. A coal pipeline system includes the line pipe, valves, support structures, and pumping, storage, and terminal units, and similar facilities used or useful in the transportation of coal.".

EXPEDITED PROCEDURE

SEC. 203. Section 10322 of title 49, United States Code, is amended by adding at the end thereof the following new subsection:

"(c) In a matter before the Commission involving a person applying for or holding a certificate to provide transportation of coal by coal pipeline under section 10941 of this title, the Commission, or a division designated by the Commission, shall expedite hearings and proceedings concerning such matter and may void the requirement of an initial decision under subsection (a) of this section and may require the matter to be considered by the Commission or such division on finding that the matter involves a question of Commission policy, a new or novel issue of law, or an issue of general transportation importance, or that is required for the timely execution of its functions.".

FEDERAL ENERGY REGULATORY COMMISSION REVIEW OF PRICES OF PIPELINE-TRANSPORTED COAL

SEC. 204. (a) Title VI of the Public Utility Regulatory Policies Act of 1978 (Public Law 95–617; 92 Stat. 3164) is amended by adding at the end thereof the following new section:

"SEC. 609. COMMISSION REVIEW OF CERTAIN COAL PRICES.

"(a) Whenever any State regulated electric utility and a coal producer enter into any contract for the sale of coal, and such coal is to be transported by a pipeline carrier providing transportation of coal under a certificate issued under section 10941 of title 49, United States Code, such electric utility shall file a copy of such contract with the Commission.

"(b)(1) Within 60 days after the date a contract is filed with the Commission under subsection (a) of this section, the Commission shall determine, after notice and an opportunity for a hearing, whether the coal producer that is a party to such contract is a captive coal operation.

"(2) If the Commission determines under paragraph (1) of this subsection that a coal producer is a captive coal operation, the Commission shall then determine, after notice and a hearing, whether the price charged for the sale of coal pursuant to the contract filed with the Commission is reasonable. If the Commission determines that the price charged is not reasonable, it shall establish the price to be applicable to the sale of such coal.

"(c) If the Commission establishes the price for the sale of coal to a State regulated electric utility in accordance with this section, the Commission may petition the appropriate State regulatory authority for the initiation of a ratemaking proceeding or other appropriate regulatory proceeding relating to rates or rate design.

"(d) As used in this section—

"(1) The term 'captive coal operation' means—

"(A) a coal producer that is owned or controlled by the State regulated electric utility to which it sells coal pursuant to a contract; or

"(B) a coal producer that, pursuant to an agreement with such a State regulated electric utility, mines coal which is owned or controlled by such electric utility.

"(2) The term 'control' has the meaning given such term in section 10944(a)(2) of title 49, United States Code.".

(b) The table of contents of the Public Utility Regulatory Policies Act of 1978 is amended by adding after the item relating to section 608 the following new item:

"Sec. 609. Commission review of certain coal prices.".

TITLE III—GENERAL AND MISCELLANEOUS PROVISIONS

STATE WATER LAW

SEC. 301. (a)(1) The United States, its agents, permittees, or licensees shall not appropriate, use, divert, dedicate, or claim water within any State for use in a coal pipeline for which a certificate is issued under section 10941 of title 49, United States Code, or for which a right-of-way is granted under section 101 of this Act unless such appropriation, use, diversion, dedication, or claim takes place pursuant to State law, regulation, or rule of law (whether substantive or procedural) including the establishment, exercise, or enforcement of terms or conditions governing appropriation, use, diversion, or dedication of water.

(2) The United States, its agents, permittees, or licensees shall not hereafter appropriate, divert, use, dedicate, or claim water within any State for use in a coal pipeline for which a certificate is issued under section 10941 of title 49,

United States Code, or for which a right-of-way is granted under section 101 of this Act under the reserved rights doctrine, except to the extent that the Congress has expressly provided or does so expressly provide in the future, and except that this prohibition shall not apply to any rights claimed as a result of the creation of an Indian reservation or under the Alaska Native Claims Settlement Act of 1970.

(b) Nothing in this Act, including the acquisition of rights-of-way pursuant to section 11109 of title 49, United States Code, or in any amendments made by this Act, shall be construed as granting a right to the use of water to any coal pipeline for which a certificate is issued under section 10941 of title 49, United States Code, or for which a right-of-way is granted under section 101 of this Act or as excusing any person from obtaining and maintaining a water permit or authorization pursuant to State law, regulation, or rule of law (procedural or substantive) governing appropriation, use, or diversion of water.

(c)(1) In granting a State water permit or authorization for a coal pipeline for which a certificate is issued under section 10941 of title 49, United States Code, or a right-of-way is granted under section 101 of this Act, any State, to effectuate a legitimate State public interest, may place terms or conditions pursuant to State law, regulation, or rule of law on the appropriation, use, or diversion of water for such coal pipeline.

(2) The establishment of terms or conditions to effectuate a legitimate State public interest pursuant to State law existing at the time of the issuance of a permit or authorization; or the exercise or enforcement of such terms or conditions; or the termination pursuant to such terms and conditions of permits or authorizations for the appropriation, use, diversion, or dedication of water; or the State law or laws enacted so as to effectuate a legitimate State public interest (A) upon which such terms and conditions are based, or (B) which apply specifically or generally to coal pipelines shall not be deemed to prevent, unreasonably burden, discriminate against, or directly negate interstate commerce even though in the absence of this Act, such State law or laws or the establishment, exercise, or enforcement of such terms and conditions may be deemed violative of the commerce clause of the United States Constitution.

(3) Once a water permit or authorization is granted by the State and accepted by the grantee, no term or condition placed thereon can be challenged later with respect to whether any such term or condition effectuates a legitimate State public interest.

(d) Nothing in this Act or in the amendments made by this Act, shall be construed—

(1) as affecting in any way any law, regulation, or rule of law governing appropriation, use, or diversion of water, or as affecting any Federal, State, Indian, or private right to water, except as provided in subsection (a), (b), or (c) of this section;

(2) as granting a right to the use of water to any pipeline carrier of coal holding a certificate issued under section 10941 of title 49, United States Code;

(3) as superseding or modifying any State law, regulation, or rule of law governing the acquisition and administration of water rights so as to excuse any person from compliance with such law, regulation, or rule of law in acquiring or maintaining water rights, except as provided in subsection (a), (b), or (c) of this section;

(4) as expanding or diminishing Federal or State jurisdiction, responsibility, or interest in water resources development or control, except as provided in subsection (a), (b), or (c) of this section;

(5) as displacing, superseding, limiting, or modifying any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more States and the Federal Government; or

(6) as diminishing in any manner the authority of a State to—

(A) grant or deny water use, or

(B) establish, or place terms or conditions regulating (or limiting), such use in any water permit or authorization.

(e) Any action brought in a Federal court with respect to the application or interpretation of this section shall be filed in a United States district court in the State in which the coal pipeline originates.

UNDERGROUND CONSTRUCTION

SEC. 302. All coal pipelines for which a certificate is issued under section 10941 of title 49, United States Code, or for which a right-of-way is granted under section 101 of this Act, and extensions thereof shall, to the maximum extent practicable, consistent with environmental protection, safety, and good engineering and technological practices, be located underground, and the person holding such certificate or granted such right-of-way shall replace sufficient topsoil on disturbed areas, so that a vegetative cover can be reestablished at least equal in extent of cover as that which sustained the natural vegetation in the area.

COAL PIPELINE SAFETY

SEC. 303. (a) Within one year after date of enactment of this Act, the Secretary of Transportation shall issue regulations or orders establishing Federal minimum standards for the safe construction, operation, and maintenance of coal pipelines.

(b) At the request of the Secretary of Transportation, the Attorney General of the United States may institute a civil action in the appropriate United States district court for a restraining order or injunction or other appropriate remedy to enforce any regulation or order issued under this section.

(c) If any person shall fail to comply with any regulation or order issued under this section, after notice of such failure and expiration of any period allowed for corrective action, such person shall be liable for a civil penalty of not more than $5,000 for each day of the continuance of such failure. The Secretary of Transportation may assess and collect any such penalty.

(d) Any person who knowingly and willfully violates any regulation or order issued under this section, or makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained by any such regulation or order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than one year, or both.

(e) Whenever a person violates any regulation or order issued under this section, any director, officer, or agent of such person who knowingly or willfully authorized, ordered, or carried out such violation shall be subject to the same fines or imprisonment as set forth under subsection (d) of this section.

INTERSTATE COMMERCE COMMISSION REGULATIONS

SEC. 304. (a) The Interstate Commerce Commission may promulgate such regulations as it considers necessary to implement the provisions of this Act and the amendments made by this Act.

(b) The Interstate Commerce Commission shall transmit to the Congress any regulation promulgated under subsection (a) of this section. Any such regulation shall be deemed approved at the end of the first period of thirty calendar days of continuous session of Congress after such date of transmittal unless either the House of Representatives or the Senate passes a resolution during such period stating that it does not favor such regulation.

(c) For purposes of this section—

(1) continuity of session of Congress is broken only by an adjournment sine die; and

(2) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of the thirty-day period.

Mr. FLORIO. We are very pleased, therefore, to have as our first witness, the Honorable Mark Andrews.

Mr. Andrews, we welcome your testimony.

STATEMENT OF HON. MARK ANDREWS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH DAKOTA

Mr. ANDREWS. Thank you, Mr. Chairman.

I appreciate this opportunity to testify on the coal slurry pipeline legislation. I have a statement that I will include in the record, if it is all right with you.

Mr. FLORIO. The full statement will be included in the record. [See p. 58.]

Mr. ANDREWS. I will summarize part of it to save the time of the committee.

Your subcommittee's jurisdiction covers some of the most controversial and least understood issues in the range of problems presented by coal pipeline operations. Specifically, I want to talk with you about a water rights problem which is very much the concern of this subcommittee, and also the rather unique way in which coal slurry contracts result in a virtually uncontrollable rate to the consumer.

As this committee knows, I am a farmer by profession, not a lawyer or politician. I graduated in agronomy. I am probably the only practicing agronomist in the whole Congress. I studied quite a bit about hydrologic siting, so important to the sustenance of life on this Earth itself.

This coal slurry pipeline concept contemplates taking ground waters from an area where we don't have definitive data on recharge, and where we don't have definitive data on quality. As a matter of fact, the research that I have seen done indicates that what is going to happen is that the very best water, the lowest mineral content water, the most potable water, the best water for agricultural purposes, is going to be used for pipeline purposes.

We don't know the quantity of recharge, the ability of recharge, we don't know whether we are going to have adequate water supplies for the people in that area, nor do we know whether the highest, best use of that water might not better be in oil shale recovery, might not better be in coal gasification, might not better be in producing the very energy that we have now to spending $80 billion to import, instead of merely transporting that energy.

The national atlas done by our Federal Government has published some very interesting maps of the Geological Survey, and obviously, as you know, these maps are far too large to include in the committee's testimony or the committee's record, but one of the plates of the atlas shows precipitation patterns for the United States, and, of course, the amounts of precipitation are least in the very area where this slurry pipeline concept contemplates taking the water, and they are the greatest in the area where the slurry pipeline terminates.

It is also interesting to know that the best water occurs on the edge of the Black Hills, where the recharge of the formation is rapid and extensive, but nobody knows what the potential for recharge is going to be under the low rainfall characterization of that part of the country.

Actually, the USGS personnel have reached a tentative conclusion that the basin can be subdivided into several subbasins on the basis of the information derived from the study of the wells drilled and from stratigraphy studies of the various formations underlying the area. Whether this conclusion is valid or not awaits further study and more information.

But if such a conclusion is valid, it would mean that there would be several hydrologic systems in the basin and that the Madison Formation overall is a very complicated hydrologic system. Such a conclusion could obviously limit the amount of water that could come from one or more of the proposed subbasins.

The information gathered so far shows the quality of water from the vicinity of the proposed ETSI well field is good quality, potable water, and as I pointed out earlier, should have much higher use.

Actually, the Madison is already the source of municipal water in the cities of Edgemont, S. Dak., Newcastle, Wyo., and is being developed as a supply for the city of Gillette, Wyo., even though the water has to be transported many miles to the last named city. But the alternative is no water at all, so they have to transport it, and if the slurry pipeline took that supply of water, the cost to these cities that are growing because of the increased development of all types of energy production in that part of our Nation, would be even heavier.

I think we also should point out that in our Western States there is a large aquifer called the Ogallala Formation, and while it starts up in the Wyoming-South Dakota areas, it extends all the way down to Texas and many of the lands in Texas have wells that are being used now for irrigation. As a result of the pumping for irrigation from the aquifer, water levels have gone down more than 120 feet in some places.

It shows there is a definitive shortage of recharge. To begin tapping again into these aquifers that are already being seriously depleted before we study methods of recharging of those aquifers, I think is counterproductive.

Mr. Chairman, my testimony for the record is a rather labored description of the condition of Midwest water supplies, leading up to the suggestion to the committee of what I see as your most crucial role in the consideration of coal slurry pipeline legislation. Both the Interior and Public Works Committees well understand the problems of allocating water shared by several States, and they have sought to protect the sovereign rights of these States to make those allocations and manage those water resources as they see fit.

The language adopted to protect those rights is undoubtedly sufficient insofar as the initial consideration by State legislatures whether to grant a water right to coal slurry pipeline projects. Where we still fall far short of State protection is in the ability of those legislatures to preempt a water right in those unforeseen circumstances where the drawdown threatens farm and community needs. We are already seeing wells that are down 120 feet, far deeper than where they were a decade ago. We have seen the damage that can be done.

These conditions are totally speculative—the failure of an aquifer to adequately recharge, prolonged drought, increased population, and agricultural development, all these factors place too great a burden on available water supplies.

To ask State legislatures to anticipate these developments is more than we can reasonably expect. Federal statutory language to have similar foresight begs historical experience. More complicating is the constitutional basis for preventing States from taking individual actions which theatens the collective welfare of the Nation. It was from this constitutional provision that the Supreme Court ruled *First Iowa* that water which States allocate to interstate projects may not later be preempted—an "undue burden on interstate commerce."

So what we are talking about here is if we allocate all the water the States have no recourse to ever get it back, even for hydropower, even for a much more necessary use, a more beneficial use from the standpoint of the Nation as a whole.

Mr. Chairman, here is the unresolvable water conflict in coal slurry legislation. Despite our best efforts to protect the States rights in that initial granting of a water right, it would require nothing short of a constitutional amendment to guarantee to the States the ability to preempt that right, once given. Let's not kid ourselves that our efforts in this legislation have been sufficient.

The second point I want to address deals with the rate which results from these passthrough coal slurry contracts. Everyone is saying look at coal slurry, it is bound to be cheaper for the consumer than transport by railroads. It is easy to beat the railroads around the head. Here is the new coal slurry concept that is going to save consumers money.

Consumers, the much touted beneficiaries of this new transportation mode, are in fact not much better off with the coal slurry people than they have been with rail service. I would like to enter for the record a copy of ETSI's proposed contract services. That proposed contract's bottom line is that the pipeline industry takes little or no financial risk in these ventures. Cost overruns, technology bugs and breakdowns, alternative water sources, labor strikes, environmental litigation, and all manner of unforeseen costs are passed directly through to the utility customer. As unregulated fuel adjustment costs these contract add-ons are ultimately paid by the industrial and household power customer.

Local utility regulators are powerless to break this cycle, nor do most of the various versions of the legislation which have been run through several stages of the legislative process appear to the meaningful Federal regulation.

In the endless criticism of rail rates, it at least remains clear that the Nation's consumers have a forum in the Interstate Commerce Commission to challenge their rates. I am astounded that Congress would willingly entertain a Federal endorsement of pipeline systems which have neatly sidestepped traditional consumer protection provisions.

I think we also have to look at the impact on the consumer of taking coal shipments off of the railroads. This Congress is beating itself over the head regularly trying to reestablish some life to some of the failed, largely eastern, railroads. It is costing the taxpayers a lot of money. They have got less than adequate services. It is costing the consumers who use that rail service.

In the West it makes little sense to take traffic off the roads that provides job opportunities to people who work on those railroads, that provide lower price transportation, to those of us who ship grain, those of us who ship hardware, or nails, or automobiles, or whatever else.

Let's be logical about it. If you run two trains an hour over a track, the cost of amortization of that roadbed is half as much per train as if you run one. So if you take the one coal train per hour off the track the people that bring in the lumber to build their houses, the farmers that ship their grain to the consumers in the East, they all have to pay more. There is no way of getting away from that economic fact, and nobody is taking that into account. I think its something that this committee ought to take a close look at.

Actually, I hope the committee then will consider carefully the ramifications of *First Iowa* and of this proposed ETSI contract I have submitted for your examination. [See p. 66.]

We are talking about something even more serious than all the old standard arguments against coal slurry which Congress has heard for years.

Two committees of this House have endured controversial debate and given marginal approval to the legislation. Key sponsors of the legislation have now even rejected that language which was so carefully worked out and reported to the House floor by the Interior and Public Works Committees.

They will instead move to substitute yet a third version of coal slurry pipeline legislation which no committee in this Congress has had an opportunity to examine. Yet none of these bills address the two critical issues of preemption of water rights or consumer rates, nor do they even touch on what happens to consumer costs of shipping other freight if we remove the revenue from coal hauling from the railroads.

Two years ago, the House of Representatives delivered a crushing defeat to the coal slurry people. I was one of those who refused to give the coal slurry industry a special priority over competing transportation industries, State policymakers, and utility consumers. I am even more convinced today that this special privilege runs contrary to the national interest.

Mr. Chairman, there is nothing inherently wrong with the coal slurry technology and nothing wrong with the competition it will provide in a free market. The imbalance will occur only if Congress interferes and provides special privilege—particularly if that special privilege does not take into account the realities of water rights and logical results of the kind of contract the pipeline industry proposes to use.

The massive impact on the rail industry in the western part of our Nation, a rail industry that we need to keep viable because of the host of other things that it must ship that can't be put in coal slurry pipelines. You would have some awful looking bread if we started shipping our wheat through a slurry pipeline. We are never going to do that.

I don't know how much beer you drink but it costs me as a farmer at Mapleton, N. Dak., 50 cents a bushel to ship my barley from Mapleton 250 miles to Minneapolis and St. Paul. Now that has doubled in the last 10 years. That adds to the price of a bottle of beer.

I suppose I should really be talking about what it costs to ship a bushel of wheat. It has increased to double the same way, and that goes into the price of a loaf of bread. But the basic necessity of this country's people, food, depends on moving the bulk products of those grainfields of Western America to the consuming centers of this Nation, and those rail rates that have gone up, have been a big factor in food cost inflation because we certainly haven't been getting more for our grain out on the farm. Those rail rates are going to have to go higher and higher if they don't get the revenue from coal.

As a farmer and consumer I am concerned, as a Representative of the Western area, knowledgeable in the hydrologic cycle and the water needs two to three to four decades down the pike, I am very concerned.

Mr. Chairman, I appreciate the opportunity to share those concerns with you and hope that in your deliberations you will consider not only what appears on the surface as the issues, but also some of these issues that will become very, very prevalent a decade or two hence. I appreciate your time.

[Testimony resumes on page 68.]

[Mr. Andrews' prepared statement and attachment follow:]

Statement of Representative Mark Andrews of North Dakota

Before the

Subcommittee on Transportation & Commerce

of the

House Committee on Interstate and Foreign Commerce

United States House of Representatives

on

August 28, 1980

Mr. Chairman, thank you for the opportunity to testify on coal slurry pipeline legislation. Your subcommittee's jurisdiction covers some of the most controversial and least understood issues in the range of problems presented by coal pipeline operations. Specifically, I want to talk with you about a water rights problem which is very much the concern of this subcommittee, and also the rather unique way in which coal slurry contracts result in a virtually uncontrollable rate to the consumer.

As this Committee knows, I am a farmer by profession--not a politician. My training as an agronomist includes that most essential knowledge of the hydrologic cycle--a phenomenon that takes place continually in nature and must be understood by those who would alter this process in damaging ways. Farmers know that production is not possible without a continuous supply of moisture. They also know that not all water sources supply non-polluted, mineral-free flows which are useful to both farm and community users.

My state, and surrounding neighbor states, are classified as arid to semi-arid. Because of this, we must be doubly concerned over both the supply of water, the quality of water and another facet of this issue which is not commonly discussed--how much of our water is lost forever through use and evaporation and how much of it remains for recharging of our aquifers.

Thankfully, water is one of the natural resources which can be considered to be renewable--if properly managed. It is to this point that the Interior Committees of both the House and Senate have agonized over their honest efforts to protect the rights of States in allocating useable water. They realize that in some areas of the country, ground water is not being replaced as fast as it's being used. Those areas do have a serious problem and I can understand the deep concern of farmers, industrialists, political leaders and all people who are facing that deteriorating supply situation.

In order to understand my concern about the impact of this legislation, let me give you some background on North Dakota's primary water source, the Madison Formation, the acquifer from which one or more proposed coal slurry projects will draw.

One of the proposals already widely discussed and publicized, the Energy Transportation Systems, Inc. (commonly called ETSI), would run from southeastern Wyoming to Arkansas and ultimately to the Mississippi River. This proposal, as I understand it, is to take up to 20,000 acre-feet of water per year from the Madison formation to use for transporting some 34 million tons of pulverized coal.

Mr. Chairman, the National Atlas has published maps prepared by the United States Geological Survey. These maps, which I've studied, contain much interesting information. Unfortunately, the size of the publication is such that it is difficult to have it made a part of the hearing record.

One of the plates of the Atlas shows precipitation patterns for the United States. It is noted that the amounts of precipitation are least in the area of the western Great Plains and the desert southwest. It is also noted that the precipitation in the southeastern part of the United States is much greater than the point of origin of this proposed slurry line.

The Atlas also shows the amount of sunshine and evaporation in the Nation. It is interesting that in the areas of lesser precipitation, such as eastern Wyoming, the amounts of sunshine and evaporation are greater than other areas to the east and southeast. The same correlation can be seen in comparing another Atlas plate showing the areas which are most susceptible to drought.

In considering the underground water resources of my area it is necessary to look at the geology which controls the occurrence and movement of water in the Madison Formation which will feed ETSI and other proposed projects. Much has been written on the characteristics of the Madison so all I will do here is to summarize the work of others.

Mr. Chairman, while the Madison Formation is widespread in the northern Great Plains and the northern Rocky Mountains, the area we are immediately concerned with lies on the east side of the Powder River Basin, a structural basin bounded on the east by the Black Hills and on the west by the Big Horn Mountains and Pryor Mountains. On the south, it is bounded by the Laramie Mountains and the Heartville Uplift, and in the north the basin shallows with a less than distinct break in the structural and surface topography.

While the Madison Formation appears to be present throughout the entire Powder River basin it is subject to various breaks in the earth's crust which are called faults. These faults can interrupt the continuity of individual beds within the formation enough so that the underground water flow can be stopped or slowed in its movement. Conversely, these faults can sometimes also act as conduits for ground water. One such fault is present to the west of the well field of the proposed ETSI coal slurry line.

One of the ways to determine whether there is rapid or any appreciable movement of water in a formation is to consider the quality of the formation waters at as many places within the formation as possible. Unfortunately, there are too few wells from which water samples can be obtained in the Madison Formation, especially in the central part of the basin. However, from the information at hand, it can be demonstrated that the formation contains potable water mainly in the areas around the Black Hills on the eastern side of the Basin. In the center part of the Basin and in practically everywhere else in the Basin, even on the western side, the total dissolved solids are far in excess of what can be considered potable water for human use.

It is interesting to note that the best water occurs on the edge of the Black Hills where the recharge to the formation is most rapid and extensive. The accumulation of water and the relative rapidity of recharge is due to the fact that the formation has been subjected to considerable solution in the geologic past and what the geologists term"karst topography" has been developed. This has led to increased secondary porosity and permeability, allowing the water to flow more freely within the formation in that area. The water on the west side of the fault mentioned previously is much higher in total dissolved solids, suggesting that the circulation of the water there is less active than on the east side of the Powder River Basin.

Mr. Chairman, one of the points which is crucial in this matter is the amount of recharge which the Madison receives from any source.

Various estimates have been made but the one most frequently cited is that made by the Wyoming State Engineer's Office. Initially this office made the estimate that the formation received on the average about 150,000 acre-feet per year, largely from the west side of the Black Hills. Subsequently, reworking of the data led to the halving of that amount to 75,000 acre-feet per year. What this really says is that there is too little accurate information to make such a determination and that any statement about recharge is just an estimate.

Currently the United States Geological Survey has underway an investigation of the Madison Formation of the Powder River Basin in Wyoming, Montana, and adjacent states. This study is still underway and no definitive conclusions have been released as yet. However, several preliminary reports have been issued and three wells located in the northern part of the Powder River Basin have been drilled to the basement rocks.

Mr. Chairman, one of the tentative conclusions the USGS personnel have reached is that the Basin may be subdivided into several sub-basins on the basis of the information derived from the study of the wells drilled and from stratographic studies of the various formations underlying the area. Whether this conclusion is valid or not awaits further study and more information. If such a conclusion is valid, it would mean that there could be several hydrologic systems in the Basin and that the Madison Formation overall is a much more complicated hydrologic system. Such a conclusion might limit the amount of water which would come from one or more of the proposed sub-basin.

The information gathered so far shows that the quality of the water from the vicinity of the proposed ETSI well field is good quality potable water with less than 500 parts per million total dissolved solids. Such water would be excellent for not only human use but also agricultural purposes. In fact, the Madison is already the source of municipal water in the cities of Edgemont, South Dakota, New Castle, Wyoming, and is being developed as a supply for the city of Gillette, Wyoming, even though the water has to be transported many miles to the last named city.

I recognize that the water is deep and probably too expensive at the present time to use for agricultural purposes. However, this might not always be the case as techniques of pumping might improve or power costs might go down allowing the use of this water for such purposes. I am also opposed to the use of surface water which has been proposed as an alternative to the Madison Formation water for this coal slurry line. In both cases water which is needed in an arid to semi-arid area for irrigation should not be used for such an inferior purpose.

In addition, Mr. Chairman, I am told that with the amount of recharge of the Madison Formation being in doubt the formation may be, in reality, being "mined" of its water. If this is the case, then it is doubly important that this formation not be used for this purpose.

The effects of the mining of water in other parts of the country are instructive as to what could happen here. I cite the example of the Ogallala Formation which is a near surface formation extending from South Dakota to Texas. The formation is extensively used for municipal supplies in this area as well as for extensive irrigation. In the Panhandle of Texas and adjacent areas of New Mexico, I understand there are more than five million acres of land under ground water irrigation largely from the water of the Ogallala Formation. Most of this land lies in Texas where 30,000 of the 50,000 wells using this water for irrigation are located.

As a result of the extensive pumpage from this aquifer the water levels have gone down 120 feet or more in some places. The result is that pumpage costs have risen markedly. It is a situation which cannot go on indefinitely and the areas in question will have to change their patterns of water use decidely in the near future. This change may well include the change back to dry land farming so that the underground water left can be used for the cities and towns dependent upon it as their only source of water. Such a change in farming methods can have a decided effect on the business and population trends in the areas so affected. The only alternative is to import water from other sources such as the Missouri River. This, I vigorously oppose.

Mr. Chairman, the economic importance of this water to the area in Texas can be demonstrated by the fact that it has been reported that 25 percent of the total cotton and 33 percent of the total corn raised in Texas comes form the Panhandle area. It is obvious that the economic affect of this underground water resource cannot be over estimated. What will become of the economy of this area when that water is no longer available in the quantities needed to sustain such an agricultural economy? I understand that the Department of Commerce has underway a study of the socio-economic effects of the potential problems incident to the overuse of this water.

With that rather labored description of the condition of Midwest water supplies, I can now suggest to this Committee what I see as your most crucial role in the consideration of coal slurry pipeline legislation. Both the Interior and Public Works Committees well understand the problems of allocating waters shared by several states, and they have sought to protect the sovereign rights of these States to make those allocations and manage those water resources as they see fit. The language adopted to protect those rights is undoubtedly sufficient insofar as the initial consideration by State Legislatures whether to grant a water right to coal slurry piprline projects. Where we still fall far short of State protection is in the ability of those Legislatures to preempt a water right in those unforeseen circumstances where the drawdown threatens farm and community needs. These conditions are totally speculative--the failure of an aquifer to adequately recharge, prolonged drought, increased population and agricultural development place too great a burden on available water supplies. To ask State Legislatures to anticipate these developments is more than we can reasonably expect. Federal statutory language to have similar foresight begs historical experience. More complicating is the Constitutional basis for preventing States from taking individual actions which threaten the collection welfare of the nation. It was from this Constitutional provision that the Supreme Court ruled in First Iowa that water which States allocate to interstate projects may not later be preempted--an "undue burden on interstate commerce".

Mr. Chairman, here is the unresolveable water conflict in coal slurry legislation. Despite our best efforts to protect the States' rights in that initial granting of a water right, it would require nothing short of a Constitutional amendment to guarantee to the States the ability to preempt that right, once given. Let's not kid ourselves that our efforts in this legislation have been sufficient.

The second point I want to address deals with the rate which results from these pass-through coal slurry contracts.

Consumers-- the much-touted beneficiaries of this new transportation mode--are in fact not much better off with the coal slurry people than they have been with rail service. I would like to enter for the record a copy of ETSI's proposed contract for its services. That proposed contract's bottom line is that the pipeline industry takes little or no financial risk in these ventures. Cost overruns, technology bugs and breakdowns, alternative water sources, labor strikes, environmental litigation, and all manner of unforeseen costs are passed directly through to the utility customer. As unregulated "fuel adjustment costs" these contract add-ons are ultimately paid by the industrial and household power customer.

Local utility regulators are powerless to break this cycle, nor do most of the various versions of the legislation which have been run through several stages of the legislative process appear to have meaningful federal regulation.

In the endless criticism of rail rates, it at least remains clear that the nation's consumers have a forum in the Interstate Commerce Commission to challenge their rates. I am astounded that Congress would willingly entertain a federal endorsement of pipeline systems which have neatly sidestepped traditional consumer protection provisions.

Mr. Chairman, I hope this Committee will consider carefully the ramifications of First Iowa and of this ETSI contract I've submitted for your examination. We are talking about something even more serious than all the old standard arguments against coal slurry which this Congress has heard for years. Two Committees of this House have endured controversial debate and given marginal approval to the legislation.

Key sponsors of the legislation have now even rejected that language which was so carefully worked out and reported to the House Floor by the Interior and Public Works Committees.

They will instead move to substitute yet a third version of coal slurry pipeline legislation which no Committee in this Congress has had an opportunity to examine. Yet none of these bills addresses the two critical issues of preemption of water rights or consumer rates.

Two years ago, the House of Representatives delivered a crushing defeat to the coal slurry people. I was one of those who refused to give the coal slurry industry a special federal priority over competing transportation industries, State policymakers and utility consumers. I am even more convinced today that this special privilege runs contrary to the national interest.

Mr.Chairman, there is nothing inherently wrong with the coal slurry technology and nothing wrong with the competition it will provide in a free market. The imbalance will occur only if Congress interferes and provides special privilege -- particularly if that special privilege does not take into account the realities of water rights and the inevitable results of the kind of contract the pipeline industry proposes to use.

I hope my colleagues who serve on the Interstate and Foreign Commerce Committee will join me, after deliberation of these facts, in opposing the coal slurry pipeline legislation.

Energy Transportation Systems Inc.
P.O. Box 3965, San Francisco, Ca 94119
Telephone (415) 764-7080/7081

February 13, 1976

Mr. Grover E. McKee
Director of Economic Development
City Hall - 11th Floor East
455 North Main Street
Wichita, Kansas 67202

Dear Mr. McKee:

Energy Transportation Systems Inc. (ETSI) proposes to finance, design, construct, own and operate a coal slurry pipeline system capable of transporting 8 million tons per year of coal in slurry form to a point in the immediate vicinity of Wichita, Kansas, and delivering dewatered coal. The City of Wichita will contract with ETSI for 8 million tons per annum, for which ETSI will charge the tariff described below.

Wichita and other shippers will be responsible for supplying coal and receiving coal and water, as scheduled, at agreed quantities and qualities. All risks, liabilities and indemnifications connected with such supply and receipt will be borne by each shipper in accordance with the terms of its tariff. The firm take-or-pay transportation agreements will require that each shipper pay the tariff even though coal is not actually available for transportation or coal and/or water cannot be received or utilized by shipper at the destination point.

Conversely, any shipper who furnishes coal for transportation in accordance with such contract, and is not prevented from receiving and utilizing coal and water, will be excused from payment of the tariff with respect to any period of time during which ETSI does not transport the coal as called for in the transportation contract.

The term of the transportation contract will be 30 years.

The tariff charged by ETSI will be $ * per ton. This tariff consists of a fixed charge of $ * covering all fixed costs and an escalatable charge of $ * covering escalatable costs.

*Supplied by sealed bid and subject to ICC approval.
To be opened when qualified competitive bids available.

Mr. Grover E. McKee
City of Wichita
February 13, 1976
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This tariff proposal is based upon ETSI's best current estimates of capital costs and other costs related to the development of the project. Following construction, the fixed portion of the basic tariff will be adjusted to final cost (including capitalized interest) of the project to reflect any differences from the estimated capital cost, the assumed interest rate and the assumed debt equity ratio.

"Interest rate" means the composite costs of money, including all fees, commissions, discounts and other charges related to debt but excluding equity.

Also following construction, the escalatable portion of the tariff will be adjusted up or down to conform to the then forecasted cost of the items listed in Exhibit A. The escalatable charge is subject to escalation on the basis set forth in Exhibit A hereto(submitted in sealed bid only).

It is understood that the above mentioned tariff is based on a 35 million ton per year system - 8 million tons per year to vicinity of Wichita, 15 million tons per year to White Bluff, 12 million tons per year unallocated at this point. The tariff will of course be adjusted in equitable fashion when the final configuration has been fixed.

ETSI will assume responsibility for supplying water for the project and has rights to the water, but ETSI will agree to provide from this source enough water to transport Wichita coal. In the event this supply of water becomes unavailable, after completion of the pipeline, ETSI will develop a solution and perform the actions necessary to provide a water supply. ETSI will recover the net capital and operating costs thereof as a surcharge addition to the tariff rate, to include a return on equity of 15%.

If the above proposal is acceptable, we propose to execute a mutually agreeable transportation contract which will become effective when (1) commitments are in hand for the balance of the total 35 million tons per year throughput, (2) assurance is in hand that crossing of the railroads by eminent domain or other means is possible and (3) commitments are received for financing. This offer will remain open for 6 months and may be extended by mutual agreement.

Very truly yours,

E. J. Wasp
E. J. Wasp
Vice President

Approved:__________________
By City of Wichita
Grover E. McKee
Director of Economic Development

Mr. FLORIO. Thank you very much for the informative and very helpful statement.

I am most concerned about the last minute amendment that has been provided, as you indicate, that has not been reviewed or reported out of any committee. I am particularly interested in one of the sections dealing with the water rights question, because it is my understanding the Public Works bill provided for a multi-State signoff for any effort to draw ground waters out of aquifers.

It is a fact of common knowledge aquifers do not respect State boundaries. That apparently has been eliminated so that a particular State is able to provide for appropriate certification notwithstanding the fact that they may only have a portion of the drawing area of the aquifer such that other States that reside upon the aquifer would have their water scooped out of the aquifer into the ground water or the pipeline.

Have you any idea what the rationale is for this?

Mr. ANDREWS. I don't really know, Mr. Chairman, other than to again try to go pell mell toward coal slurry without doing anything about the massive impact on the people out in the West.

You put your finger on it, you said it better than I could, that these aquifers go under many States and it could be well that the State that signed off would be the State that wasn't using the water from that aquifer and that State's neighbors, which under this amendment would have no say-so whatesoever, could be totally dependent on this aquifer for water, and be in a very critical situation and still have no input.

But again, as I addressed in my presentation earlier, even if the States sign off, what happens 10 years down the pike or 20 years down the pike when these recharges, which we don't know about, take place and when we find further depletions. There is no way to undo the damage, there is no way to put Humpty Dumpty together again.

That is a concern that we should all be addressing. I think it is a serious concern for the future growth of the West. I think it is not only the population that is right there. When you talk about oil shale, importing $90 billion worth of oil a year into our country, lousing up our balance of payments, it has a massive impact on inflation, causes critical problems in our national defense because we could be blackmailed at any minute by that small area of the world.

We all know those problems. The only way to get away from them is to achieve energy independence that this administration and administrations before have been trying to move toward. Oil shale in the West, gasification of coal in the West, all require huge quantities of water if we move in that direction.

If the research funds that we have appropriated and we have authorized in Congress begin to take effect years from now, we could well find ourselves in a desperate need for tens of thousands of acre-feet of water out there to do just this, develop those synthetic fuels, a far more important use than for transporting coal down to States that already have a copious supply of water when this coal could just as well be transported on rails providing job opportunities to the great railroad workers, providing opportunities for lower net costs to the shippers of grain and other products that have to move over those rails.

I think that the committee should take a look at it. It is gratifying to me that you are taking a look at it.

Mr. **Florio**. I have one last question before deferring to the other members of the committee.

The Public Works bill and I believe the Interior bill, provide for the ICC to sign off on the impact of the disposal on the water at the end of the pipeline, upon the ground water supplies.

This new amendment has been put together in a very haphazard way. The ICC is removed from the question. I am concerned about impact upon ground water supplies and the disposal process of the potentially hazardous water at the end of the pipeline. In fact, there is going to be no Federal agency at the end of the line who will be signing off. The ICC is removed and the States are left with the jurisdiction.

Mr. **Andrews**. That is right, and nobody knows what hydrocarbon impurities will be left in the water. Nobody knows what they will do to the aquifer if they are injected into the aquifer. No one knows what they will do if they are left to flow over the ground. It is one of the big questions.

Mr. **Florio**. It seems to me that should be a consideration that is considered prior to certification of a project before one gets into the total construction of what may be a very expensive project at the end. When it is constructed it is going to be a little late to try to think of something different.

Mr. **Andrews**. That is certainly true, Mr. Chairman.

Mr. **Florio**. Mr. Madigan.

Mr. **Madigan**. Mark, I am assuming this is correct, that the coal slurry pipeline could not be built without a permit from the Federal EPA, that it would be subject to NEPA?

Mr. **Andrews**. I am assuming that that might possibly be true, but again let me stress that if one is granted at this particular point in time, it can't anticipate all of the other problems that would come up along the line.

Mr. **Madigan**. Is there a State water survey in your State of North Dakota?

Mr. **Andrews**. There is over parts of the State.

Mr. **Madigan**. Are they able to tell at what rate this aquifer recharges?

Mr. **Andrews**. No, they can only guess, and they found that their assumptions are often far from the mark. They revise those assumptions periodically as they get more input, but it is one of the, shall we say, less precise applications of scientific knowledge.

Mr. **Madigan**. Would you think it would be beneficial to insure that pipelines could not be built without a permit from each of the Environmental Protection Agencies, each of the States through which the pipeline would be constructed?

Mr. **Andrews**. I think that is true. I think that also at a bare minimum there should be no construction unless every State that lies over the aquifers involved, has some input.

But even if we put that into law, we wouldn't be addressing the problem of the unanticipated needs for water a decade or so hence, because of the massive needs for synthetic fuel production which are very consumptive of water. We may well be pipelining water into Utah and Idaho to develop oil shale. We may well have to find additional water to do gasification of coal in those arid areas, and to start now on a project that ships the water out of that area when there are other methods of shipping that coal, just doesn't make sense to me.

Mr. MADIGAN. If we charged through an amendment the Environmental Protection Agency has the responsibility of looking at those particular things before we could grant the permit to proceed, would that be an orderly thing to do, in your judgment?

Mr. ANDREWS. It might be orderly but I don't think it would be—I don't think any Federal agency knows as much about State needs as a State agency. I would rather have the protection lie with the States rather than with the Federal agency. Certainly the EPA should look at it but I don't think EPA should be a substitute for State input, and certainly we ought to be hesitant about any agency, any group of bureaucrats, any group of us sitting around a table deciding what the best use of this water is today, when we know down the pike we have got all of these other new concepts not even hardly on the drawing boards yet, that we must move into if we are gong to achieve energy independence.

Mr. MADIGAN. Thank you very much.

Mr. FLORIO. Mr. Matsui.

Mr. MATSUI. Thank you, Mr. Chairman, I appreciate your time limitations.

Mr. FLORIO. Our next witness is the Acting Deputy Director of the Office of Transportation Industry Policy of the Department of Transportation, Jack Harman.

Welcome to the committee. Your statement will be made a part of the record in its entirety and you may proceed as you see fit.

STATEMENT OF JOHN HARMAN, ACTING DEPUTY DIRECTOR, OFFICE OF TRANSPORTATION INDUSTRY POLICY, OFFICE OF THE ASSISTANT SECRETARY FOR POLICY AND INTERNATIONAL AFFAIRS, DEPARTMENT OF TRANSPORTATION

Mr. HARMAN. I would like to give my relatively short statement.

Mr. Chairman and members of the committee, I am very pleased to be here today to testify on H.R. 6879, the Coal Pipeline Act of 1980, and related legislation. As you know, the administration strongly supports the enactment of legislation to facilitate the construction of coal slurry pipelines in a manner consistent with national energy, transportation, and environmental policies. This Department, as well as DOE, Interior, and EPA have previously testified in support of legislation to grant eminent domain authority for the construction of these pipelines, and we continue to urge the enactment of such legislation.

We believe that any legislation should incorporate the following major features:

Provisions for granting right of passage over Federal lands and private lands as determined on a case-by-case basis;

Provisions for access to a single agency to which a pipeline would apply for certification, that is, "one-stop permitting";

A clear designation of pipelines as common carriers subject to rate regulation by the ICC;

Ownership restrictions and antitrust review provisions sufficient to guard against competitive problems that might arise from pipeline certification yet flexible enough to insure that pipeline operators would have ready access to construction and operation capital;

Protection of State water rights;

Provisions to insure that a pipeline will comply with current environmental law and minimize the overall effect on the environment; and

Provisions that are reasonable and fair to detemine the need for a pipeline vis-a-vis alternative methods of transportation.

With respect to the latter point, I would like to set forth several observations bearing on coal transportation. The primary concern of our Department is whether a given investment in a particular mode of coal transportation over a particular route makes sense economically as part of the entire transportation system. Whether a proposed slurry pipeline should be constructed depends, of course, upon the availability of existing alternative modes along the route, the costs of these alternative modes, and the potential impacts of slurry pipelines on alternative modes, principally railroads and barges.

On the question of the potential impact of slurry pipelines on competing carriers, the key issue is what effect the diversion of coal traffic would have on the financial viability of competing rail or water carriers, and the extent to which such financial impact would affect the shippers of commodities other than coal. We believe that this question must also be considered in the context of those rail rate regulatory practices that are in place at the time of a particular slurry pipeline project application.

In this regard, our comments assume that meaningful rail deregulation is enacted in this Congress, and that the ICC will not be faced with approving coal slurry pipelines while it also deals with railroads hindered by needless rate regulation. Our view is that the marketplace is the best place to determine the relative merits of a pipeline versus competing rail service, but this would be impossible if railroads are unable to market their services in response to market demand.

Mr. **Florio**. Mr. Harman, is it fair to say the support of the administration for this bill is contingent upon enactment of railroad deregulation?

Mr. **Harman**. We feel that enactment of rail deregulation is very important to making the bill work meaningfully in the general form that the various bills have been introduced, yes.

Mr. **Florio**. We know it is important. You just presented in a very succinct and lucid way the interdependence and interrelationship between the coal slurry pipeline and a deregulated rail mode in order to make sure that there is no adverse impact upon the major carrier of coal, which happens to be railroads.

I think the logical conclusion is that if we are going to go forward with legislation of this sort it is absolutely essential for the interests of the railroad industry, which relies to a large extent upon coal, to be deregulated I would think that inasmuch as the administration is apparently supporting this Coal Slurry Pipeline Act, that they would have to arrive at the inevitable conclusion that it is contingent upon railroad deregulation.

Would that be a fair assumption?

Mr. **Harman**. I think that is a fair assumption. It would be extremely difficult to make coal slurry legislation work, to insure that the best service is provided to all shippers by the transportation marketplace, if we do not have rail deregulation.

Mr. **Matsui**. I don't think I understand your answer. I think what he asked was is would the administration still be in support of the coal slurry if deregulation fails? Maybe you put it in the opposite way but I would like a yes or no answer. I didn't understand your answer.

Mr. **Harman**. The administration supports coal slurry. The administration supports competition in the transportation of coal. The administration supports in principle the legislative approach to solving the emminent domain problem for coal slurry pipelines. We find it very difficult to make this workable without meaningful——

Mr. **Matsui**. Would the administration give broad support to coal slurry bills if in fact railroad deregulation is off and it can no longer possibly be passed in this session?

Mr. **Harman**. I think that we would have to consider that and involve the different agencies. I cannot speak for them.

Mr. **Matsui**. You can't speak to that? OK.

Mr. **Florio**. Thank you. Please proceed.

Mr. **Harman**. We feel it would be impossible for the marketplace to determine the real merits of the different systems, if railroads are unable to market their services in response to shipper demand. Indeed, it would be ironic if withholding rate freedom from the railroads were to force an increase in Federal financial assistance to cover the gap between rail revenues and necessary investment, and if simultaneously, profitable traffic were diverted from the railroads to competing transportation systems.

Concerning cost comparisons, our reviews of cost estimates from various studies indicate that the comparative costs of the rail and slurry pipelines indicate that the comparative costs of the rail and slurry pipeline modes do not lend themselves to generalized answers. Our analyses point to the need for route specific cost comparisons, taking into account factors such as the size and geographic spacing of mines supplying the pipeline, the volume of coal to be transported, and the distance over which coal is to be moved.

Additional considerations include the terrain, soil conditions, land use, any major water crossings along the route, water availability, and the spacing and number of customers to receive coal from one pipeline.

In conclusion, Mr. Chairman, the administration continues to urge the enactment of coal slurry pipeline legislation, and we will continue to work closely with Congress in developing a suitable bill.

I will be happy to answer any questions you or other members of the committee may have.

Before closing, Mr. Chairman, I would also like to express the appreciation of the administration for your sustained effort to achieve meaningful rail deregulation. We support the excellent compromise which has recently been worked out.

Mr. **Florio**. Thank you very much.

Mr. Madigan.

Mr. **Madigan**. Mr. Harman, are you familiar with the studies done by the Government of the United Kingdom concerning comparison between coal slurry pipelines and the transportation experiment they have called the merry-go-round?

Mr. **Harman**. The Government of the United Kingdom?

Mr. **Madigan**. That is right.

Mr. **Harman**. No, I am not.

Mr. **Madigan**. Do you know what their merry-go-round train is? It is a train that moves in a continuous closed circuit.

Mr. **Harman**. And continues to move while being loaded and unloaded?

Mr. **Madigan**. That is right.

Mr. **Harman**. Yes, I am familiar with that concept.

Mr. **Madigan**. But you are not familiar with the fact that all of the studies done by the British show that was a more efficient way of moving coal than any pipeline?

Mr. **Harman**. I am not familiar with that particular study. I would suggest that this would vary in terms of the distance. As far as I know, the merry-go-round train is generally applicable for relatively short movements of several hundred miles. The economics of coal slurry pipelines begins to appear attractive at rather long distances, at 1,000 miles and over, and when you have very large quantities of coal being moved—quantities of 25 million to 40 million tons per year are now being mentioned.

It also, as I mentioned, depends a lot on terrain. If you have very rough terrain, the rail solution will probably have a lot of circuity, it might have 15 to 30 percent in additional distance.

Mr. **Madigan**. Does the administration acknowledge the problems that Congressman Andrews alluded to this morning, both the problems of depleting water resources at one end of the pipeline and then the disposal problem at the other end of the pipeline?

Mr. **Harman**. The administration certainly acknowledges these problems.

I think I would like to defer to my colleague from the Environmental Protection Agency to deal with the particulars.

Mr. **Madigan**. I wonder if you or your colleague will tell the subcommittee whether or not you think it would be wise for there to be a solution to those problems before a pipeline is actually constructed?

Mr. **Harman**. I believe that will be a major part of the Environmental Protection Agency testimony. I would like to defer to them. I am not the expert in that area.

Mr. **Madigan**. Thank you. I have no other questions.

Mr. **Harman**. I realize it is extremely important.

Mr. **Florio**. Mr. Matsui.

Mr. **Matsui**. No questions.

Mr. **Florio**. I would like to ask a question with regard to another agency in the Department of Transportation. The Materials Transportation Bureau has jurisdiction over hazardous materials under the Transportation Act. It is my understanding that there are no regulations proposed for coal slurry pipelines, notwithstanding the fact that a break in a pipeline would certainly result in the exposure to the environment of materials that admittedly can be hazardous, particularly to ground water.

Is there any reason why the administration is supporting the bill and has no plans to go forward in this agency with regulations to deal with a potential break in the pipeline?

Mr. HARMAN. There has been a certain amount of discussion as to where the jurisdiction for pipeline safety would lie and some of the proposed acts designate the Material Transportation Bureau as the agency responsible for pipeline safety. We are prepared to move rapidly on that.

Mr. FLORIO. I am not familiar with another agency that would have some authority over pipeline safety.

Mr. HARMAN. It could be the Department of Energy. That has been suggested in several of the legislative solutions.

Mr. FLORIO. Following through on the point that Mr. Madigan made, should we resolve these things before we authorize a pipeline process to go on?

Mr. HARMAN. I think the question of jurisdiction should be resolved by the legislation, whichever piece of legislation is considered by the Congress.

Mr. FLORIO. Perhaps there should be a need for an amendment to the bill to insure that in the ICC certification process the question of spills from pipelines is appropriately referred to the agency. Regulations from that agency—which I would assume to be the Materials Transportation Bureau—should be published before certifications can be given, because you can not tell if you are complying with a regulation unless the regulations are published. Is that a fair conclusion?

Mr. HARMAN. That is reasonable. I believe that some of the legislation that has been proposed has provisions which are adequate to insure the safety of the pipeline. I am not sure that all of the pieces of legislation do. There is inconsistency among them, as you know.

Mr. FLORIO. Thank you very much.

Our next witness, and we are pleased to have him with us, is the Chairman of the Interstate Commerce Commission, Mr. Darius Gaskins. Welcome to the committee.

STATEMENT OF HON. DARIUS W. GASKINS, JR., CHAIRMAN, INTERSTATE COMMERCE COMMISSION

Mr. GASKINS. I appreciate the opportunity to be here today to present the views of the Interstate Commerce Commission on coal slurry pipelines. As you know, the Commission has tesitified before this subcommittee on this subject previously. Our comments today reiterate some of what we said in our earlier testimony.

There are several bills currently pending before the Congress on the subject of coal slurry pipelines. Most of these bills involve certification by the Commission of the need for a particular pipeline, and grant a Federal power of eminent domain over non-Federal lands to any pipeline so certified. A coal pipeline is required to operate as a common carrier and is normally subject to full regulation by the Commission, including rates and abandonments.

Since there are a number of bills which contain these same general outlines, I would like to take this opportunity to discuss in general the Commission's views on coal slurry pipelines, rather than go into a detailed analysis of particular bills. The Commission and its staff would be pleased to discuss with you and your staff each particular bill if that seems desirable.

The Commission fully supports the concept of coal slurry pipelines. There is, of course, some concern over a pipeline's impact on rail carriers, since coal slurry represents a significant source of potential competition for a very important portion of rail traffic. Nonetheless, we believe the railroads can and should meet this new competitive challenge, and that the marketplace should determine whether coal pipelines present a viable alternative to rail transportation.

It is apparent that this country must make increasing use of its coal reserves in an effort to attain energy independence. In some instances, coal pipelines would help this Nation to make the most efficient use of our domestic coal reserves. In other instances, alternative modes may prove to be the most efficient. We believe the marketplace should make this determination.

The Commission is neither pro-coal pipeline nor pro-railroad; rather, we are interested in fostering competition so that the most efficient mode of transportation, given particular and differing circumstances, is used.

In order to insure that competition really works to the benefit of the public, we think it is extremely important to avoid establishing a significantly different regulatory regime for coal slurry pipelines than for competing modes. If railroads, for example, were subject to minimum rate regulations, and pipelines were not, situations could arise in which one mode or the other would be called upon to provide service even though the other might be more cost effective.

If one mode is subject to maximum rate regulation and the other not, the carrier subject to the regulation might not actively pursue those service opportunities for which it does not believe it would be adequately compensated. In particular situations this may lead to the higher cost mode providing service and the public ultimately paying higher rates.

It should be clear that in advocating even-handed regulations we are not advocating regulation per se. In the instances cited we think it likely the public would be best served by granting competing modes maximum flexibility rather than seeking to restrain each equally. The very existence of competing modes can lead Congress to give greater flexibility to each mode with the confidence that the public will be well served. Affirmative action on legislation facilitating the construction of coal slurry pipelines is a strong argument for substantially reducing regulation of the railroads.

Of course, there are other important issues that pertain to the use on coal slurry pipelines, including the impact on water resources. Clearly, the Congress will have to balance all of the issues involved carefully before it determines if the Federal power of eminent domain should be conferred on private individuals. However, from a purely transportation oriented point of view, we believe coal pipelines will provide healthy competition and make good sense.

It is too early, we think, to make any specific forecast of the ultimate role of slurry pipelines in the coal transportation system. Too many economic, technological, and environmental questions remain which can only be answered as the result of actual experience. For the moment, though, we see further development of slurry pipelines as a source of actual and potential competition that should help, not hinder, the development of an efficient, rationalized, and profitable national rail system.

This concludes my prepared remarks. I will be glad to answer your questions at this time.

Mr. Florio. Thank you very much.

Mr. Matsui.

Mr. Matsui. No questions.

Mr. Florio. Mr. Gaskins, Congressman Andrews in his very impressive testimony talked mostly about water concerns. One thing he talked about—he entered into the record a proposed contract that one of the pipelines apparently was offering to the utilities—was that the contract had an awful lot of opportunities for passthroughs. Inasmuch as the ICC is going to be called upon to certify extensively—I assume you will be called upon to certify the contracts—and I think Mr. Andrews' testimony was that there was not too terribly much you could determine from the rather generalized contract, and his concern was that costs unanticipated in the contract would ultimately be passed on to the consumer through the utility charges that were there, passthrough provisions again would not even be monitored at the utility level.

How do you anticipate dealing with that type of thing so to be able to get some feel on the costs and, of course, protect the consumer, so we can know what the impact is going to be on the competing modes of transportation, namely, the railroads?

Mr. Gaskins. Well, I think you put your finger on a potential problem, a problem that perhaps the Commission is not best suited to solve because our general attitude toward contracts involving transportation in any mode is that if they are entered into willingly on both sides the Commission is loath to substitute its judgment for the judgment of the parties involved.

Now, in the particular instance that you raised, there are several people that are directly involved, have a stake in the contract, which we hope would act in a way that would preserve their interest.

First, you have the utilities themselves, who should be concerned about the cost of its transportation, and they should exercise due caution in the development of the contract in the first instance.

Second, you have the Public Utility Commission, who has to in fact grant the ultimate rate increase that goes with any subsequent passthrough. I would hope that those two parties would be quite diligent and tend to minimize the impact of this problem.

We would take the general attitude toward any contract that if it was clearly agreed to by the parties, then we would like to leave the rate setting to that particular agreement.

However, it is conceivable that we could have a situation develop in which parties were not diligent, in which a particular contract was abused in a way that could lead to unfortunate circumstances for the transportation system as a whole, and at that point the Commission would have to make a judgment about whether or not we were going to take some action to remedy the situation. But it would be a very, very difficult decision for us to make. Of course, once you get in the business of meddling with contracts, you undercut the very viability of contracts. So it is not something we eagerly get into.

Mr. FLORIO. The difficulty is it is going to have to become involved because you are not dealing with average length negotiations taking place between two private parties that are attempting to always arrive at the most beneficial arrangement, because you are dealing with a Public Utility Commission.

The situation has been determined in my State, and I suspect other States, that automatic fuel adjustment factor encompasses transportation costs, and that is never even scrutinized, that is automatically passed through. There is not a regulatory proceeding to evaluate that, there is no incentive whatsoever to drive the hardest bargain on one of the contracting parties.

Mr. GASKINS. I would agree that the incentives to drive the harder bargain have been diminished somewhat, but remember, the fuel passthrough clauses after all, are allowed only after decisions made by the regulatory bodies and they are decisions that could be modified under some circumstances.

But remember, the incentive that the utility manager has is to make the maximum return for his shareholder, and that does provide incentive for him to purchase his inputs at the lowest cost. Athough I admit that the presence of the fuel passthrough as you describe, would seem to cut the existing Public Utility Commission out of the process, and that might be an unfortunate aspect.

Mr. FLORIO. What are the limitations on ownership of pipelines as understood from some of the legislative proposals?

Mr. GASKINS. Well, I think to the extent that the various bills assign to the Commission the responsibility for granting a certificate, it will be up to the Commission to make an ultimate decision as to who may own a pipeline and who may not. I think, speaking for myself, and I believe for the majority of the Commission, we would apply our normal standards to these sort of financial arrangements, the kind of standards which we apply to proposed rail mergers, truck mergers, and we would in general approve the ownership of a pipeline when there is no unnecessary, undue harm to competition in the transportation system.

Mr. FLORIO. Would it be fair to say that a coal company would not be an appropriate owner of a pipeline?

Mr. GASKINS. I would not want to make that judgment before the fact. I would need to look at an individual situation, and I can conceive of a situation in which a utility is bargaining between coal companies and transportation sources when it makes a plantsite decision.

In other words, it says it makes a decision based on the delivered price of coal to its utility, it doesn't care who owns the pipeline, whether it be a pipeline company or whether it be the producer of the coal.

Mr. **Florio**. Doesn't that go to the whole question of the good faith negotiations of the contract?

Mr. **Gaskins**. I don't think it would necessarily mean you couldn't have good faith negotiations because, remember, if the utility has the possibility of rail transportation and other pipeline proposals, all they care about is the bottom line—what they pay for the delivered coal and they perhaps are indifferent to who does the delivering.

Mr. **Florio**. You are making all the arguments that are being made on the deregulation case because in certain instances you may not have that reasonable transportation alternative.

Mr. **Gaskins**. Well, that is a significant problem and when we get into a situation where there is not a reasonable transportation alternative then the Commission will have to exercise some judgment about——

Mr. **Florio**. You are predisposed not to draw classifications of industries or businesses that should not become involved in the ownership of a pipeline?

Mr. **Gaskins**. Certainly not before the fact. I want to make the judgment after I have seen the competition that exists.

Mr. **Florio**. I just feel with the relationship, of the question of the contract and the ability to review the contract—particularly if ICC is not disposed to want to get into each and every contract—you are not going to be able to get into motivations, that are in the economic interest of the parties and maybe the economic interests of the public.

Mr. **Gaskins**. In the last instance, we are prepared to intervene, but we are very loath to do so because we would hope the companies would fend for themselves. We are very concerned that we adopt the same policy toward contracts. When two individuals, sane individuals, have agreed to something, we are loath to interject our judgment into that arrangement.

Mr. **Florio**. You have made the point of evenhandedness in dealing with pipelines and other modes of transportation. Are there any other areas that stand out in your opinion, under existing law, or under proposed deregulation proposals, that would still leave us with a situation that pipelines or all railroads in the future, were this law to be enacted, would be left with an advantage or disadvantage that should be corrected?

Mr. **Gaskins**. As I understand the proposals for reform, I think we are talking about an evenhanded treatment, but as I indicated in my testimony, if we end up with one regulatory mode with less opportunities than the other, we will have an undesirable state of the world, and we should take action to see that they are treated the same.

Mr. **Florio**. So we can conclude, I think, from your statement, that were this pipeline bill to go forward and be enacted into law, and were we to keep the existing regulatory scheme on railroads without proposals for deregulation, that would not be an equitable situation?

Mr. **Gaskins**. I agree with that assessment.

Mr. **Florio**. One last point: There has been a modification in the Public Works bill and in the Interior Committee bill which provides for the ICC to provide for eminent domain authority not over just railroad rights-of-way but over all private lands.

Do you have some thought on the desirability of that? Inasmuch as that has not been considered by any substantive committee, have you advocated this?

Mr. **Gaskins**. I have not been involved in deliberations that led to that result, and I guess I would suggest that this is up to the Congress to determine, because of course that represents in some sense the taking of certain rights of private individuals that is done only after due consideration and for good reason. I personally would be inclined to go in that direction from what I understand the need for pipelines to be, and the potential impact on the transportation aspect as well.

I would like to defer to Congress on this point, because you are in a better position to judge this.

Mr. **Florio**. Suggestions have been made over the past couple of days that railroads should be required to voluntarily offer public rights-of-way at proper compensation in their capacity as common carriers.

Mr. **Gaskins**. That sounds like an assymetric treatment of the two modes, and I would not endorse that. I think we should try to maintain symmetric treatment of the two modes.

Mr. **Florio**. Mr. Madigan.

Mr. **Madigan**. Having been downstairs during most of the chairman's testimony, I am reluctant to question for fear of being redundant.

Mr. **Florio**. Thank you very much.

Our next witness is Dr. David Stephan, Director, Industrial Environmental Research Laboratory, U.S. Environmental Protection Agency.

You may proceed as you wish.

STATEMENT OF DAVID G. STEPHAN, PH. D., DIRECTOR, INDUSTRIAL ENVIRONMENTAL RESEARCH LABORATORY, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY GARY DIETRICH, ASSOCIATE DEPUTY ASSISTANT ADMINISTRATOR FOR SOLID WASTE

Dr. **Stephan**. Mr. Chairman, I would like to introduce my colleague, Gary Dietrich, Associate Deputy Assistant Administrator for Solid Waste.

We at the Environmental Protection Agency are well aware of the need for domestic energy production and are committed to the President's goals of energy independence, which call for increased domestic energy production consistent with the related need for environmental protection.

The proposals before the committee with respect to coal slurry pipelines will provide us with another alternative for transporting coal from its source to the point of consumption.

We are optimistic that coal slurry pipelines can be built and operated in an environmentally acceptable manner. Coal slurry pipelines can have environmental advantages. By providing a means of conveying coal from its origin to a remote point of use, the mined area is spared the additional environmental problems attendant to minemouth power generation, including air pollution and a far greater level of water consumption, a very important consideration in the West.

The use of coal slurry pipelines entails, as do other modes of coal transport, environmental impacts which can be minimized given adequate planning and precaution. Our primary concern, therefore, is that adequate consideration be given to environmental problems in a timely fashion. This is best accomplished by early, open discussion during the planning stage of a project. This leads me to the issues the subcommittee requested we address today—the potential impact of wastewater discharges at the end of the pipeline and the environmental implications of leaks or ruptures in the pipelines themselves.

Before discussing these potential impacts I want to stress that the state of the art of pipeline technology is relatively advanced, and that careful attention to maintenance and operating procedures can minimize the possible environmental impacts I am about to describe.

Mr. **Florio**. In defining what you are referring to as early, are you talking about the point at which ICC certifies to go forward with the eminent domain proceedings, or are you talking about the eminent domain proceedings Rhode Island commenced and permits?

Dr. **Stephan**. I can only answer this from my standpoint; I am talking about the earliest planning stages of the pipeline route, when the amount of water use, the type of water that would be used to transport water etc. are being established. I am not sure where this fits into the ICC permit process, sir.

Let me return to my statement by noting that in some of the Western States where coal transport pipelines might originate, coal slurry pipelines might have to compete with other water needs, such as agriculture, industry, municipalities, and even recreation. For this reason, water of low quality, less suited to fulfilling these other needs, has been and will continue to be considered as transport water. For example, municipal wastewater after treatment might be one source; the use of wastewater from the mining operations has been suggested; and use of saline underground water is a third possibility. In considering any of these and other sources of transport water, however, we must keep in mind that the nature of the effluent which must be disposed of at the end of the pipeline will be affected by the quality of the transport water used. In addition, if impurities in the transport water are absorbed on or occluded in the coal itself, they could conceivably become air pollutants in the course of subsequent coal combustion. Further, as you are all aware, the physical removal of substantial volumes of water from one location to another can impact the hydrology of an area as Mr. Andrews mentioned earlier. While water quantity is not of concern to the EPA in the direct sense that water quality is, nonetheless, changes in quantity are of real concern environmentally when they impact quality through reducing the flow of rivers and streams, lowering the levels of lakes and reservoirs, or affecting hydraulic gradients in ground water aquifers.

Operating experience is very limited as regards the environmental impacts of the discharge of slurry transport waters at the terminus. The one operating system in the United States, the

Black Mesa Pipeline, terminates at the Mohave Powerplant in the southern Nevada desert. Wastewater from the powerplant is simply sent to evaporation ponds and, at this location, annual evaporation rates are sufficient to dispose of the water. There is, therefore, no surface discharge.

Most of the proposed pipelines, however, would terminate in relatively high rainfall areas making natural evaporation an impractical solution. Under these circumstances, several possibilities exist for disposal of the transport water. The most commonly mentioned are:

First, recycling for use in slurry transport. While attractive from an environmental and water conservation standpoint, recycling does not appear to be an economically viable alternative, at least at the present time. The additional capital cost of installing dual pipelines and pumping stations and the operating cost of pumping water twice as far impose what we would believe to be a formidable economic obstacle.

Second, agricultural irrigation—the key here is the quality of the transport water at the downstream end of the pipeline. If the slurry water has, for example, come from a saline aquifer, it would not be suitable for agricultural irrigation without extensive treatment. If the transport water has come from a municipal or industrial waste water source, it might contain pathogens or toxic components which would render it unsuitable for irrigation without some type of wastewater treatment. Moreover, even if the slurry water had been generally acceptable for irrigation at the upstream end of the pipe, by the time it is discharged at the downstream end, it could have leached salts and other contaminants from the coal itself such that it no longer is a suitable irrigation water without further treatment.

Third, utilization by the powerplant receiving the coal—at the present time, most coal slurry pipeline promoters advocate using the separated water in powerplant operations at the pipe terminus. The most common proposal is to use it as a part of the makeup water for cooling towers as is done at the terminus of the Black Mesa pipeline. Although cooling tower water has reasonably few quality constraints, part of the water must be discharged as blowdown to prevent the buildup of mineral solids. Thus, portions of the transport water do eventually become wastewater even in this circumstance.

EPA has supported relatively little work in this area, but we have completed two projects aimed at evaluating the pollution potential of slurry pipeline operations. The results of the first project were published in March of 1979 in a report entitled, "Environmental and Pollution Aspects of Coal Slurry Pipelines." This study attempted to point out potential environmental problems in the design, construction, and operation of pipeline systems. Our second study, for which the report is to be published in the fall of 1980, is devoted to a description and characterization of the potential environmental contaminants carried in one coal-slurry mixture. It is this second study which goes most directly to the specific issues the subcommittee requested EPA to address today—the potential environmental problems associated with disposal of waste water at the end of the pipeline or arising from leaks or ruptures in the pipeline itself.

Results verify that pollutants in slurry water discharges come from three sources: One, contaminants in the feed water used in the pipeline; two, chemical interactions between the water and the coal as they move through the pipeline; and three, chemicals deliberately added to control corrosion and pH, to aid in coal-water separation or to reduce the friction loss in the pipe.

As I mentioned earlier, consideration has been given to utilizing low-quality water for coal transport. If a wastewater is used, whatever pollutants might have had to be removed from it so as to allow discharge at the upstream end of the pipe will undoubtedly have to be removed at the downstream discharge point as well. If a natural saline water or brine is used, there are likely to be fairly stringent limitations on discharge of that water if it is to be discharged into any freshwater body such as a river or lake. And keep in mind that the removal of salinity from water requires, generally speaking, one of the more expensive treatment systems.

Saline water-coal interactions tests have indicated to us that salts from the water can actually absorb onto or become occluded into the coal such that they remain with the coal when it is separated from the transport water. This is true when you have a water high in salinity. This causes corrosion problems in powerplant equipment but can also lead to larger quantities of ash and ash from which salts may then leach back into the environment if left exposed to weathering. However, these impacts are likely to be trivial in comparison with the overall ash disposal problem at a powerplant.

Even assuming freshwater is used as the transport medium, the interactions between the coal and water as they move through a pipeline may result in waste water at the terminus which would pose environmental problems for disposal. For example, a decrease in pH, that is, an increase in acidity, appears likely as a coal slurry moves through a long pipeline. However, so long as the decrease in pH is relatively small, as suggested by the tests run to date on western coals, it is unlikely that there will be significant dissolution of metals which would be toxic. If there should be a significant decrease in pH, then some dissolving of metals inherently found in coal could occur. Although metals found in coal, such as zinc, lead, and chromium, can dissolve, generally we have found that concentrations of these metals can be expected to remain quite low. The decrease will be dependent on the amount of sulfur. Those of the Rosebud seam have been very low.

Even without a reduction in pH, an increase in dissolved minerals may pose environmental problems. Sulfate and chlorides may dissolve to concentrations which might lead to potential water quality problems at the point of discharge. Very finely divided particles of coal and other minerals will obviously enter the transport water. These particles cause turbidity which will remain in the water even after centrifugal separation of the coal and water at the terminus. Too high a suspended solids level could present problems in meeting water quality discharge standards. However, special coal-water separation techniques can minimize this potential problem.

A possible problem which needs further study concerns the leaching of organic compounds from the coal into the transport water. If the water is subsequently chlorinated to disinfect it—it is a common practice to chlorinate cooling water to prevent biological films from growing on exposed surfaces in cooling systems—various chlorinated hydrocarbons, many of which are suspected carcinogens, could be formed. These, in turn, could result in human exposure if they find their way to downstream water supplies, or in the ground water.

Chemicals added either to the pipeline or in the dewatering process will also affect transport water quality. For example, a common and effective corrosion inhibitor for use in pipelines is hexavalent chromium. This form of chromium is quite toxic and discharge limits are quite low—50 parts per billion. Treatment would undoubtedly be required, but it is available. Phosphates are also utilized as additives to inhibit corrosion. Since phosphates, acting as aquatic nutrients, can trigger accelerated eutrophication of lakes and reservoirs, they too may need to be removed by treatment. That treatment again is available as a fairly common engineering practice. In addition, a number of chemicals may be added to the coal dewatering cycle: caustic to readjust pH, coagulants and coagulant aids would be common additives.

To this point, I have attempted to elucidate the variety of types of environmental quality problems that might arise from the use of slurry pipeline technology. On the positive side, it should be stated that control technologies do exist and are available for practical application to handle essentially all of the potential water pollution problems mentioned above. The one exception, about which too little is presently known, is the question of dissolved organic compounds which, if subsequently exposed to chlorination, may be precursors of various chlorinated organic materials. Research on this general problem, that is, the conditions under which chlorinated organics are formed, their toxic effects on man and aquatic life, and means to prevent their formation or to remove them, is under way in several of EPA's research laboratories and elsewhere.

As for the treatment to remove the other troublesome pollutants, site-specific treatment trains would have to be designed to meet applicable quality requirements at the point of discharge. Such discharges would be subject to a National Pollutant Discharge Elimination System—NPDES—permit under section 402 of the Clean Water Act.

Mr. **Florio**. That is for surface water?

Dr. **Stephan**. Yes, sir.

Mr. **Florio**. What about ground water, you are talking about a holding pond or a lagoon and these materials working their way into a ground-water supply. What are the regulatory permits required, if any?

Mr. **Dietrich**. If that area has a waste, it would require a permit.

Mr. **Florio**. Who makes the determination at the outset as to whether a lagoon would be—assume the disposer presumes it is not hazardous material and seeks no permit. Then obviously after the accumulations, they are in the pond, nobody gets around to asking, and the ICC has not the necessary expertise to ask for certification, and then all of a sudden we find the ground supply of X town has been contaminated with hydrocarbons, how do you explain the concern?

Mr. **Dietrich**. Probably the determination of whether the waste is a hazardous waste has to be made by the generator of that waste. We obviously will have an enforcement program to monitor whether those determinations are being made correctly. In most cases you are talking about the generator being a powerplant.

Mr. **Florio**. But we are talking about what if you happen to stumble upon it? How do you go about dismantling the project? I suppose what I am saying, should we not have some system on line prior to the certification process, before anyone is talking about investing all this money, to make sure that whatever it is, that it is being tested before one disposes of these materials?

Mr. **Dietrich**. You are talking about a new source, a new facility in place in there. A new facility may not create a hazardous waste or treat and dispose of such waste until it has a permit. Presumably a power company, if it is smart, would make the determination and would be required to get a permit under the RCRA program.

Mr. **Florio**. As of now, a holding lagoon for ultimate disposal is not something covered by RCRA, under the present law. Nevertheless, we have some hazardous material in that lagoon and you do not know anything about it and somebody has gone forward in good faith because they do not think it is covered by the law, which it is not right now; and they do not think it is contaminated ground water; and there has never been any governmental review prior to the organization needed to go into eminent domain and ultimate construction?

Mr. **Dietrich**. Let me take an example and see if we can sort through this problem. Take the example where the source's blowdown water goes to an evaporation pond. He would be obligated to file for a permit, to submit a permit application to us if he believes he has hazardous waste. If he fails to do that and he builds and his plant starts discharging blowdown water into the impoundment and we should discover the water is in effect hazardous waste and he does not have a permit, presumably we could virtually stop him from operating.

Mr. **Florio**. Which act applies?

Mr. **Dietrich**. The Resource Conservation and Recovery Act.

I think he will make a very careful determination when he builds his plant as to whether he will or will not have hazardous waste and will file for a permit, in which case there will be an opportunity for EPA, or if the program is within a State, the State will be able to consider the permit before construction and operation of the plant begins.

Dr. **Stephan**. Effluent guidelines for slurry pipeline discharges have not yet been developed by EPA, but individual permits would be issued by EPA, or by States to whom permitting authority has been delegated, based on engineering judgment of best available technology.

The more highly contaminated the discharge water, the more complicated and more costly the treatment requirements will be if the transport water must be upgraded for discharge. As a point of reference, if treatment costs were to be $1 per 1,000 gallons—this would provide quite a high degree of treatment—the impact on the cost of the coal transported would be about 25 cents per ton. If the treatment cost were only 10 cents per 1,000 gallons, the impact on the cost of a ton of coal would be less than 3 cents.

Let me turn now to another question you have raised—the problem of possible pipeline leaks or even breaks. Because a leak involves a relatively small discharge volume, it is not anticipated that leaks per se will cause significant environmental harm prior to detection and correction. Coal slurries are simply not that potent.

A rupture, on the other hand, is more serious because it usually occurs instantaneously permitting a large volume of liquid to be released into the environment before corrective action, such as the closing of block valves, can be taken. The problem which could occur from a major pipeline break will depend on the quality of the water released and on the location and terrain in which the break occurs. The released water may seep into the ground, form in ponds or puddles, or drain into an existing waterway. Such releases of untreated slurry could pose substantial problems. These include any of the problems mentioned above in the discussion on discharges at the pipeline terminus such as pollution from corrosion inhibitors, toxic metals, salts, et cetera. For example, if saline water were used as the transport medium or if a strong corrosion-inhibiting chemical were present in the pipeline, a volume of such water flowing into a freshwater pond or stream would pose a real danger to aquatic life or even to water supplies. If undisinfected sewage effluent were the transport medium, serious contamination of a water supply could possibly result.

Without intending to minimize environmental problems which might arise if a leak or a rupture of a pipeline were to occur, I do note the relatively advanced state-of-the-art which pipeline technology has reached. This includes methodologies to detect the location of leaks or ruptures and automatic valves for cutting off flow. Moreover, pipelines carrying slurried coal would seem to offer less of an environmental threat than those carrying oil, gas, or other chemicals. It is believed, therefore, that with proper design and careful attention to maintenance and operating practices, the leak/rupture environmental danger should be relatively small.

I hope this has provided you with the kind of brief overview you were seeking. I shall be happy to try to respond to any questions you may have.

That concludes my statement, Mr. Chairman.

Mr. FLORIO. Thank you very much.

Mr. Madigan.

Mr. MADIGAN. Doctor, in your statement, you indicated the quality of water, rather than the quantity of water, was the principal concern of your agency, but you did acknowledge that the quantity of water would be something considered by you. I assume you would agree that the quantity of water certainly has an impact on the quality of life.

Dr. STEPHAN. Yes, sir.

Mr. MADIGAN. Mr. Andrews testified the State water survey in South Dakota is unable to establish what the recharge rate is in the aquifers. Is that a common occurrence?

Dr. **Stephan**. I am not really qualified to give an answer to that question. I would assume that recharge rates can be quantified rather realistically by the geological profession.

Mr. **Madigan**. I wonder if you could describe to me in any detail how your agency would go about determining whether or not the amount of water to be consumed by a coal slurry pipeline would have a negative impact on the quality of life in the area from which the water was going to be withdrawn.

Dr. **Stephan**. At the upstream area, you would take into account the average and low flow of the stream from which the water would be extracted. From that, we would be able to calculate what the impacts of pollution loads from industry and municipalities would be, and from that calculate, with reasonable certainty, whether that would cause the levels of contamination in that stream to exceed those that had been established by the State or by EPA for the uses that surface water was to serve in downstream locations.

If the water were to be taken from saline aquifers, then we would be talking about water of nonpotable quality. We would then be concerned with water discharges at the terminus. If the water were taken from a potable aquifer, the same considerations would be exercised as with surface water withdrawals; what would be the impact on the quality of that groundwater if a certain volume of water were extracted for transfer out of the aquifer area.

Mr. **Madigan**. In the particular district I represent, there is under construction a nuclear powerplant to be cooled by a manmade lake which has been built by the power company. The lake was created by the damming of the creek. But the EPA permit necessary for the people to proceed with the construction of that lake required that the discharge back into the creek below the dam had to be—the stream flow had to be the same number of cubic feet per minute at any measured point as it was prior to the construction of the dam. Would that be the same kind of standard you would be using on surface water?

Dr. **Stephan**. I assume it would be similar. As you recognized earlier, that very definitely relates to the concentration of pollutants downstream from the point of withdrawal. That matter has to be taken into account, to effectively determine whether or not water quality standards are being violated.

Mr. **Madigan**. Would that be a reasonable standard to apply on a potable-water aquifer as well?

Dr. **Stephan**. I do not think it works in the same way with regard to an underground aquifer. I think the method of approach would be different. Conceptually, I think one would look at it in a similar way: That is, what would be the impact of various polluting materials that would enter into a particular aquifer if some of the water in that aquifier were removed?

Mr. **Madigan**. It is possible for there to be an effect on an aquifer similar to the effect in a running stream.

In the Mohammad Aquifer in Illinois, when the city decided to drill extra wells, that had the result of drying up certain farm wells and reducing the water supply in the town of Cisco. In this case the aquifer was substantially diminished.

Dr. **Stephan**. That is potentially possible. I would clearly think that matter would be examined before a withdrawal would be authorized.

Mr. **Madigan**. When you talked about the possibility of using municipal waste water that had been treated, it is important to remember that water is ofttimes discharged back into a creek which is a tributary of another body of water which becomes the water supply for a downstream community.

Dr. **Stephan**. Very frequently.

Mr. **Madigan**. So if you were to take the treated municipal waste water as a source for the coal slurry pipeline, you would be running into the possibility of diminishing the water supply?

Dr. **Stephan**. The question is, How significant is that in terms of the overall water budget? It could be insignificant; it could be significant on a small stream.

Mr. **Madigan**. Thank you.

Mr. **Dietrich**. I know under the Clean Water Act we have authority to regulate point-source discharges and under that authority we are able to make this balance so as to assure the flow in the river is maintained. It is not clear that we have that authority with regard to ground water, although we can certainly make assessments as to whether the withdrawal of ground water has an effect on that ground water body and its uses. I am not sure that we have much authority; certainly we do not have the same authority that we have with regard to surface water. We can make the estimates; whether we can do anything about it, I am not sure.

Mr. **Madigan**. The largest county in my district has no surface water; the entire water supply is an aquifer. It serves several industries, the University of Illinois, and other institutions as well. In view of what you have said, do you not think we should make changes in the law so you do have authority as to aquifers?

Mr. **Dietrich**. I just wanted to point out that EPA, under the current statutory regulations, cannot effectively regulate the quantity of water withdrawn.

Mr. **Florio**. Let me make a general comment expressing an apprehension that I have from the testimony not only from you, but the previous witnesses, questioning whether you have the legal authority to make these evaluations as to impact of ground water flows.

Congressman Andrews stated, and it has not been refuted yet, as to whether anybody has the technical know-how to make the determination. Those variables are very imprecise.

Some of the other things you have talked about today, particularly in anticipating pipeline companies will go for permits and assuming they will do so in their own interests, my concern is that certainly they perceive their own interests as doing the review process and making the appropriate applications, but what happens if they do not have the expertise to drive them to the conclusion that they have to have permits for a holding pond or lagoon? We will have a situation where they will later on be required to do something after they have gone through the process of building.

Likewise, previous witnesses have testified there was legislative confusion with regard to a break in the pipeline. There are at least two departments, and EPA was not mentioned. I supppose they might feel it an appropriate role for them to play as to who should come up with a scheme to monitor pipes, et cetera.

I am drawing a fairly obvious picture of a lot of confusion and lack of clarity. At the same time, we have legislation we are considering now which will call upon ICC to certify all these environmental considerations which you are addressing now, and railroad commissions we will address in a while. But focusing on environmental considerations, we will ask ICC to consider these things. They will defer to the agencies we have heard from, all of whom have said we are not sure we know what we are doing; we are not sure even which agency should be involved in this.

How is ICC to certify these things on the state of the existing law? Then you will have the pipeline companies on reliance of those certifications going ahead and developing. Then when we find out who has expertise in a department, we have schemes that come into play, that lead into costs that will be passed on to the pipelines, which will probably be ultimately passed on to the consumers. Then we will hear, "All you crazy governmental people did not tell us about these things; we relied on you in good faith, now we have to build this new system, and the people are going to have to pay for it."

Does not commonsense dictate we hold off until we know what we are doing before we go into this whole new venture?

Mr. DIETRICH. I am not nearly as pessimistic as that. I think none of these determinations can be technically made with a fair degree of precision.

Mr. FLORIO. Is a holding lagoon, where there is a discharge, of chlorinated hydrocarbon, going to be immediately required to be a disposal site, seeking a permanent permit? Has anybody made a determination of that sort?

Mr. DIETRICH. It could not have interim status under the existing statute, except for the 126 pipelines existing now.

Mr. FLORIO. You mentioned Mesa. I assume everything does not evaporate, there are materials left. Let us assume there is a saline content in the water in the evaporation operation, there is chlorine that is used. Let us assume that you may have chlorinated hydrocarbons. Is an interim permit required for that lagoon or pond?

Mr. DIETRICH. Not at this point in time, not because they contain hydrocarbons.

Mr. FLORIO. It is a carcinogen. Why not?

Mr. DIETRICH. We would probably have to list that particular waste, blowdown water. We have not prepared a set of data to do that. Therefore, we have not listed it at this time. At this point in time, the blowdown water may appear to the facility to be hazardous waste, if it exhibits any of the characteristics we establish. Probably the most EP—the——

Mr. FLORIO. I am looking at the list. If it has hydrocarbons, it is toxic.

Mr. DIETRICH. The EP toxicity test is based on the drinking water parameters which include eight heavy metals and six pesticides. It does not include the wide range of chlorinated hydrocarbons. That has been a difficult area, and we are looking at it.

Mr. FLORIO. How would the ICC certify something if you are working on it? We are talking about new pipelines, and we are talking about pipelines with disposal discharge ponds that will require permanent permits. My recollection is that the EPA Administrator testified that there may very well be 4 or 5 years before all existing facilities will be certified, much less projected facilities.

How does someone give a certification to go forward with eminent domain proceedings without the assurance somebody will be qualified for that operation?

Mr. DIETRICH. You are correct. We are estimating 5 to 8 years to deal with existing permits, and we are not sure with regard to new sources. Presumably application for new sources will be dealt with when they come in the front door.

Mr. FLORIO. What you are saying is, notwithstanding the fact that interim permits have automatically been granted, all manner of sites, some of which we know are probably not very good, those permit review processes will be deferred to new permit applications coming in.

Mr. DIETRICH. Our priorities would be to deal with new permits and to deal with the worst and the best of the sites in terms of permitting.

Mr. FLORIO. Worst and the best?

Mr. DIETRICH. Those we think are polluting the environment very badly, we would take those up right away as a part of the No. 1 priority, basically. So we could get them to upgrade their facility or deny a permit and shut them down. Likewise, we would want to issue permits for the very good ones. Obviously, we will have some of the existing facilities permitted in the first year.

Mr. FLORIO. It may very well be that we will make this an informal suggestion or maybe an amendment to the bill, but I think there is a need to have the various environmental agencies in the Government draw together all the appropriate agencies as to coal slurry production, if it has to be done in a task force or however, to see how coal slurry impacts upon all the existing law; and if in fact Congress is going forward with legislation of this sort, that it not be required to wait for the normal course of events to deal with coal slurry.

I suspect the pipelines are interested in this legislation and want to go forward as rapidly as possible. I think they should have the security and certainty of knowing that the environmental concerns they will be forced to look at are being looked at and an attempt is being made to pull them together. It may very well be, there is a need to not treat coal slurry as a part of the operation, but there may be a need for the crash program to pull together all the coal slurry ramifications in the different laws.

Mr. DIETRICH. I cannot disagree with you at all, Mr. Chairman. I believe in authorizing one of those projects, you should look at all the environmental hazards they may include, such as spillage and leakage, air, et cetera. Those can be drawn together. I believe that EPA and the States can assist another agency, such as ICC, if that is the way the Congress would set it up, to certify whether the project will meet the environmental concerns of all those areas.

I think we have in most cases—I will not say in all cases—the technical wherewithal to make those type certifications. It would be a prerequisite for the preauthorizing of one of these projects. I think we and the States can do that. In addition, we will have to operate under existing authorities and also be issuing permits, but I do not want to leave the committee with the impression that the several permits we are now authorized to give cover all the environmental aspects that could be involved.

Mr. **Madigan**. I have one last question.

Mr. **Florio**. The gentleman from Illinois.

Mr. **Madigan**. Do either of you gentlemen know whether there is any situation where an underground water supply becomes a tributary of the navigable waterway?

Mr. **Dietrich**. Yes, there are.

Mr. **Madigan**. The Corps of Engineers has control over anything that happens to any water, even if it is a drainage ditch on a farm, if that water eventually finds its way into navigable waters.

Mr. **Dietrich**. That is a fairly broad statement, but the authority is very broad.

Mr. **Madigan**. Yes, it certainly is. We have an ironic situation where they would be controlling through that section called the section 404 permit anything having to do with what you might do to a relatively small body of surface water. However nobody has any control at all on an underground water supply, the tens of thousands of gallons that might very well be feeding the navigable waterway.

Is that correct?

Mr. **Dietrich**. That is generally correct. Several of the States have taken up the matter of regulating ground waters to some extent, some more perfectly than others. However, half a dozen States have an aggressive program in ground water control, both in quantity and quality control. In some States you do not have much of a program at all. In the Federal statutes, principally the Clean Water Act, the authority over ground water is not very explicit. We certainly have authorities and jurisdictions with regard to waters of the United States which principally are defined in the legislative history and in the legislation itself, being principally surface water, navigable and unnavigable.

There is some authority in section 208 of the Clean Water Act to study ground water, but the regulatory authority of the Clean Water Act does not reach to ground water.

It is possible in some cases where you can show a pollutant getting into ground water and you can show that ground water goes directly into navigable water, where we could cause our authority to reach to that situation.

Unfortunately in many cases the mapping of the ground water flow is not sufficient so that you can always make that judgment. You certainly, in many cases, can make it when you are talking about ground water near a stream or estuary, you can make the determination that it recharges back into surface water, but if you are back away from streams, it is sometimes hard to make the definite connection that that ground water there flows into a certain stream over here.

Mr. **Madigan**. I am grateful for the appearance of both you gentlemen this morning. The changes which you have pointed out are areas in which the Congress has been deficient.

Mr. FLORIO. Our next witness, president of the Association of American Railroads, Mr. William Dempsey.

Good morning. We appreciate your presence. Your statement will be made a part of the record in its entirety. Please proceed as you will. [See p. 96.]

STATEMENT OF WILLIAM H. DEMPSEY, PRESIDENT, ASSOCIATION OF AMERICAN RAILROADS

Mr. DEMPSEY. I will summarize my prepared testimony and try to touch upon the highlights which seem to us to be most significant.

It is no surprise to the committee that the railroad industry vigorously opposes all the legislation regarding eminent domain and the pipelines.

The issue, it seems to me, can be assembled under two general headings: energy and transportation. I would propose to outline the reasons that seem to us to compel the conclusion that the proposed legislation in any of its forms is bad. It is bad energy policy and an atrocious transportation policy.

Back some years ago, when this debate first commenced, the principal argument advanced in support was that the rail industry would not be able to meet the challenges of the proposed increase in production of coal. Since then, there have been a number of disinterested studies made by a number of Government agencies, the Department of Transportation, Bureau of Mines, and Office of Technology Assessment. Without exception, they have concluded the transportation system, the rail system in particular, will be capable of meeting any demands made as to an energy program.

I would draw your attention to the excellent study of the Office of Technology Assessment. In my judgment, it is the most comprehensive of all the studies which have been made.

I am sure I do not have to say to this committee that the problem of the rail industry in many respects is traceable to the fact that we have an overcapacity. This has been an albatross around the necks of the industry. If large increases in the coal industry do materialize, what has been a liability, this excess capacity, will be turned to a public advantage. So one does not hear very much any more from the advocates of coal slurry pipelines that somehow the railroads will not be able to meet the challenge. It may be out of habit that these arguments are advanced, but they are not supported by any study, and I have not heard any proponents today base their argument on such study.

The ground has shifted so that somehow, in some fashion, there is more competition for the railroads with respect to transportation of coal. I would like to consider that argument. First of all, I think what needs to be said is that there is no reason for the introduction of additional competition with respect to rail transportation. If one looks at the level of rail coal rates, the fact of the matter is, those rates have been held to a rather low level by the ICC. Coal is our No. 1 commodity and accounts for about 30 percent of our traffic, yet it returns to us only about 15 percent of our revenues. Put differently, coal rates range around 2 cents a ton-mile on the average, to be compared with an average of all commodities of 3½ cents per ton-mile.

Coal rates have been escalating at a pace that is substantially less than the escalation in the price of coal. The price of coal has gone up about twice as rapidly as rail transportation rates over the last 5 or 10 years. The consequence of course is, as a component of the delivered cost of coal, rail transportation rates are an increasingly smaller fraction. About 10 years ago, coal transportation rates accounted for 37 percent of the delivered cost of coal; today, only about 25 percent.

It is true in the West, wherever long distances are involved the transportation component of the delivered price of coal is larger.

I suggest to you that the problem is very clear: For years the western producers have been enjoying the benefits of relatively low oil and gas prices, and now because of public policy changes, they are being obliged to look to coal as an alternative source of fuel, and again because of public policy constraints, they are not able to use the high-sulfur coal which is closer to them. It would be much cheaper to transport. They instead look to Wyoming and Montana, some 1,600 miles from the point of consumption. The western coal rates are small, 1 cent per ton-mile, compared to the national average of about 2 cents, but of course when the coal must be moved those enormously long distances, the total charge for transportation is relatively large. That I suggest cannot be laid at the feet of the railroads, and I must say in addition, we know of no instances in which the delivered cost of coal has impeded conversion of a facility from gas or oil to coal. That is because of the tremendous gap which continues to exist between the cost of Btu of gas and oil in particular and coal.

But if for some reason it were thought that private industry somehow subsidize the price of coal, then I suggest that one ought not look to the weakest link in the chain, the rail industry, but rather, and I do not suggest this be done, but one ought to look first to the utility industry and perhaps to the coal industry, whose rates as I said have gone up so much faster than rail rates. Either choice would be a bad one, but preferable to the railroads looking to subsidized conversion.

Next, I would like to consider what kind of competition would be produced by the introduction of coal slurry pipelines. Here, first of all, I think one ought to consider the examination by the OTA study of whether or not coal slurry pipeline rates would actually be lower than rail rates because obviously, if there is no reason to think they would, then there is no reason to think that competition of any sort would benefit from this technology. The question of whether coal slurry pipelines would be cheaper than rail transportation must inevitably be speculation.

OTA in its assessment of the pipeline scenario has specifically cautioned against any presumption that valid cost comparisons between rail and pipeline operations can be made. In the explanation of the scenario, OTA notes that the need to "predict future construction costs, labor productivity, and inflation rates adds a major element of uncertainty to the relative costs of the two modes."

Indeed, Governor Peterson, the Director of OTA, testified that this uncertainty was so great that it would not in fact be cheaper than by rail.

I think the paradigm is the Alaskan pipeline, where the original estimated cost was $1 billion and it wound up costing $8 billion. It is that kind of uncertainty which gives us great alarm. The agency would have to make decisions on the basis of cost estimates, which have proven to be so unreliable. Once a pipeline is constructed, it is very unlikely that it will, under any circumstances, go out of business.

Beyond that, it seems to us evident that this gets to a central issue, that the competition in any circumstances would be unfair competition. I have the highest respect for Chairman Gaskins, and it is with deference that I register our disagreement with his point on this matter, given this morning.

Rather, we support the dissenting view of Vice Chairman Gresham.

Chairman Gaskins conceded readily, I shouldn't say conceded; he stated that if the two modes are not regulated in an evenhanded way, that is to say an equal way, then it would be inequitable to support by Federal legislation coal slurry pipelines.

I submit, with all due respect, that no matter what form of rail deregulation, if any, emerges from this Congress, none of the versions could possibly put railroads and coal slurry pipelines on the same basis. That is not only because every version that has been proposed retains a significant measure of railroad rate regulation, it is due perhaps more particularly to the fact that no version that has been proposed, none that I can conceive of, would take from the railroad their common carrier obligation on the one hand, and on the other hand, as the OTA study pointed out, there is no way in the real world that a coal slurry pipeline could in fact be made a common carrier.

Coal slurry pipelines, in order to be econmical, must necessarily serve but a few customers that take enormous quantities of coal—some 20 to 25 million tons a year, and it does so under a long term 25- or 30-year so-called take or pay contract under which the customer is obliged to pay for the 25 or 30 million tons of coal whether or not that coal is actually delivered and used.

There are two things to say about that. One is the thing about competition. Since as soon as the contract is entered into, competition is foreclosed, there is nothing the railroad can do by reduced rates or better service to capture that traffic back.

The other significant element, it seems to me, is that this is—this is not said by way of criticism, it is just inherent in our opinion, but this is cream skimming at its best.

The railroads on the other hand, are not able under existing or any of the appropriate regulatory schemes to concentrate their resources to serve only the most profitable customers. This is the most profitable kind of traffic for the coal slurry pipelines and it is profitable for the railroad. It is the kind of thing we really do the best, the kind of thing that is suitable for the merry-go-round operation, but we can't say to prospective customers, smaller customers, customers it is more expensive to serve, we are not going to serve you, we are going to devote all the resources to the big shippers. We can't do that.

None of the legislation being proposed would lift any of those obligations from us and none of it gives us greater freedom than we already have to abandon unprofitable facilities. So we must maintain this entire system, serve all of these customers.

The coal slurry pipeline is not obliged to do that, and that is what OTA meant when it referred to the regulatory distortions and large social costs that would be associated with introduction of coal slurry pipeline operations.

Two other things. I note with respect to energy policy, one is simply that it is relevant, that the OTA concluded railroads are more energy efficient than are pipelines.

The second point is one that Representative Andrews referred to in his very excellent testimony this morning, and that has to do with the impact on energy development of the deployment of water resources in the West.

I am going to quote a few sentences from the OTA study in that respect. It talked about one pipeline, by way of illustration, the proposed Montana pipeline, but said that pipeline would take enough water to revegetate about 3,000 acres of surface-mined land in the Colorado area in 1985, and if all the water were redirected, it could be used to mine 160 to 220 million tons of coal, reclaim 16,000 to 21,000 acres of surface-mined land, serve up to 10 coal gassification plants, or up to 5 coal liquification facilities or provide cooling for 2 to 4 powerplants.

So, as the OTA concluded, one of the results of the establishment of pipelines that Representative Andrews pointed out, would be to inhibit the future mining of coal and shale. That seemed to me to be a particularly wrongheaded approach to an effort to solve our energy problem.

Let me turn for a moment to the transportation issues that are involved.

It seems to us evident, as it did to Representative Andrews, that the economics of the situation are indisputable. Coal slurry pipelines would have a major deleterious effect upon the railroads and, therefore, upon the shippers of other commodities and the communities that would remain so heavily dependent on the railroads.

I think what I need to say in addition to that, is simply to point to the order of magnitude of the damage that is threatened.

The OTA concluded that in the year 2000 the rail industry would be deprived of $687 million in net operating revenues and western railroads alone would be deprived of $628 million. This loss would be considerably more than the entire net operating income for the industry in 1976 and it exceeds the net operating income for the western railroads in every year prior to 1978.

That is some $687 million lost in net operating revenues in 1 year, $680 million lost in the jobs, lost in improved services to our shipping communities.

Coal is our future. The committee is fully aware of the chronic financial difficulties that the industry faces. We haven't had a net return of as much as 4 percent on investment since 1956, as high as 3 percent since the midsixties. Last year was a good year for us at 2.6 percent. In each 4 of the last 5 years our return has been 2 percent or less.

We are frank to say that we look to the promise of coal transportation as one of the brighter elements in our future. That is particularly true of roads like Conrail that have suffered a loss in coal

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transportation in the recent past, and it is true in particular of the harder pressed roads like the Middle West, which have not been major transporters of coal, with the development of western coal, are becoming increasingly dependent upon coal and look to coal as one element of a solution to the railroad problem.

We suggest that it is obviously undesirable from a transportation point of view to rob the railroads and their employees and the communities that depend upon them of this opportunity by legislation in terms either of energy policy or of transportation policy.

Let me put it this way, if I might:

Sometimes it seems to me people become bemused by the fact we are dealing with a relatively exotic technology, but really all it does is transport coal. It does it in a different way physically than railroads and it threatens some, poses some enormous threats in terms of environmental damage. Putting all that aside, what it does economically is to transport coal.

Now, if a group of entrepreneurs were to come to this committee and Congress and say look, at what we would like to do is get in on this new coal business out in the West, we want to build a railroad out there. To be sure there are railroads that serve these points now, and to be sure they are not doing very well, but we figure if we could build a railroad that concentrated entirely on this project to make a lot of money, we might be able to come in with lower coal rates, we need Government help.

I suggest those entrepreneurs would be laughed out of Congress, laughed out of Washington, and I suggest in conclusion that that is the fate that this legislation richly deserves.

Thank you, Mr. Chairman.

[Testimony resumes on page 113.]

[Mr. Dempsey's prepared statement follows:]

STATEMENT OF

WILLIAM H. DEMPSEY, PRESIDENT,
ASSOCIATION OF AMERICAN RAILROADS

BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE
OF THE
HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

H.R. 6879, THE COAL PIPELINE ACT OF 1980
AND RELATED BILLS

August 28, 1980

My name is William H. Dempsey. I am President of the Association of American Railroads, a trade association representing the nation's railroads. The Association's member roads operate 92 percent of the line-haul mileage, employ 94 percent of the workers and produce 97 percent of the freight revenues of all railroads in the United States.

I appreciate the opportunity to appear before you today to present the views of the railroad industry on H.R. 6879 and related bills which would authorize rights-of-way for coal slurry pipelines to cross railroad lands. The railroads vigorously oppose this legislation. The proponents of coal slurry pipelines would have this subcommittee and the Congress believe that this legislation is essential to meet our nation's energy goals and to assure that transportation alternatives exist to further the public interest. Neither premise has any basis in fact. Indeed, one must ignore the facts and the objective studies made to date if one is to justify the Federal initiative behind pipeline construction. This subcommittee should set the record straight. The legislation to be placed before the Congress can make no contribution to energy goals; it provides no additional incentive to burn coal. Neither would this legislation provide for any meaningful competition in transporting coal.

I note with interest that, in their later forms, the pipeline bills that have emerged from the Congressional review process entails a complicated regulatory scheme, replete with page after page of safeguards against the obvious harm borne by pipeline construction and operation. Under this regulatory schemè, the I.C.C. would assume the leading role in assuring the public's interest is promoted. Low coal rates are to be assured without any harm to the financial health of railroads. Common carriage is to be assured notwithstanding the "take-or-pay" contracts upon which pipelines will be premised. The environment and scarce water resources are to remain undisturbed even though, by all objective accounts, pipeline constuction and operation are inherently incompatible with that which is to be protected. The railroads take no comfort in this generous list of safeguards, however, for the contemplated regulatory scheme is hopelessly contradictory. In the face of an overwhelming record of the demonstrable harm arising from coal pipelines, the proponents of these bills would have this Congress merely pass along to the I.C.C. the difficult task of weighing the public's interest. This delegation of responsibility to the I.C.C., an agency which some regard as favoring "competition" at any cost, is inadequate to protect the public's interest.

My principal objectives in testifying today are to persuade this Subcommittee, first, that this legislation cannot appropriately be considered as energy legislation, and second, that this legislation is premised upon a fundamentally flawed concept of competition. I believe that the points I wish to make are supported by all the objective and impartial analyses of the coal pipeline question which have been made to date. In particular, I direct your attention to the March 1978 report by the Office of Technology Assessment (OTA). That report is among the more comprehensive and authoritative studies which have been undertaken, and it addresses a number of the significant issues to be resolved in your deliberations over the coal pipeline issue.

Proponents of coal slurry pipelines have intensified their efforts in recent months to link the construction of coal pipelines to the nation's energy policy and, more particularly, to the goal of exploiting our coal resources. While the details are alway obscured, the clear thrust of the argument put forward is that railroads are an obstacle to increasing the production and use of coal. An unfavorable report by the President's Commission on Coal speculates that railroad coal rates, because they increase the delivered price of coal, are an impediment to speedy coal conversion. Of course, no examples are cited. Following that report, the nation's coal producers recommended to the President that I.C.C. regulation of coal rates be stiffened and that eminent domain rights be created for coal pipelines if our coal resources are to be developed. The railroads are not aware of any instance where conversion plans or production increases have been thwarted or even delayed by transportation problems. The rising cost of oil and gas has itself created the necessary incentive to convert. The national average cost of coal delivered per-BTU burned by utilities is less than half of that for oil. It is also substantially less than that for natural gas, and its relative cost advantage will continue to increase as oil and gas become more expensive.

The suggestion that transportation problems have delayed coal conversion or otherwise impeded coal production rest only on fiction. The capabilities of the railroads in meeting coal transportation have kept pace with the expectations of producers and users. More importantly, railroad capability can continue to meet future expectations as long as coal pipelines are not permitted to pirate heavy volume, long distance coal traffic from the railroads. Both OTA and the Department of Transportation have recognized the capability of the railroads to respond to utility needs in switching to coal in the future. The 1979 report by OTA states that "the capacity of rail systems can be expanded faster than can coal mining or electric power generation using coal, provided the necessary investments in local rail facilities are made" and that "the choice between transportation modes will not be determined by their respective capacity limitation." OTA squarely refutes any suggestion that the railroads cannot meet the Nation's coal transportation needs.

Within a few months of the release of the OTA report, the Department of Transportation released the report by its Coal Transportation Task Force which confirmed railroad capabilities. Estimating that the demand for rail transportation of coal will require an investment of over $10 billion, the report said: "While some problems may exist, we believe that this investment can be made;" and "In many instances ... the rail coal hauling capacity already exists and the expected new traffic will allow the railroads to make better more efficient use of their heavy past investments." (See U.S. Department of Transportation, Transporting the Nation's Coal -- A Preliminary Assessment, 1978). This latter point should also be taken into account in weighing the coal pipeline issue. Extensive investment has been undertaken to acquire the equipment and upgrade the rail facilities needed to move coal in an economical manner in the years ahead. A sound transportation policy demands that the railroads be allowed to reap the benefits of their commitments both for their own financial health as well as for the welfare of rail shippers in general.

Most recently, pipeline proponents have pressed their case with the allegation that railroad capacity is not adequate to meet the flourishing demands of the coal export market.

The concerns of this export market, of course, have no bearing on our energy goal of coal conversion. But more to the point, port congestion and transhipping delays are not railroad problems and are not even domestic transportation problems. They are the common headaches of international commercial practices. Foreign buyers specify particular blends of coal which transhippers undertake to meet. The arrival and unloading of railroad coal traffic often must be coordinated with the arrival of the exporting vessel. At the present time many coal export facilities are not being fully utilized, while others are severely taxed. This imbalance should shift in the future to the benefit of all port interests. And if we are to embark upon a massive program of increased coal exports, it is the port facility capacity and not railroad capacity which must be expanded. Pipelines would not contribute to expanded capacity; they would merely duplicate the existing rail facilities.

Having set aside the misbegotten notion that the coal pipelines bills are linked to an effective energy policy, this subcommittee and the Congress should turn their attention to the contribution coal pipelines might be expected to make to an effective national transportation policy. Quite clearly in the opinion of the railroads, a Federal effort to foster coal pipeline rights-of-way would be bad transportation policy. Pipelines can serve only to shrink the traffic base to which the railroads must look to meet their revenue needs.

I urge this Subcommittee not to endorse the shallow analysis by which pipeline proponents suggest that coal pipelines and railroads would somehow compete. No meaningful competition could occur given the nature of pipeline operations. Competition, at least within the transportation industries, is generally thought to be the opportunity to choose between alternative rate levels or service considerations. Competition can exist among the various transportation modes or among carriers within a particular mode. By their very nature, however, pipeline economics exclude all competition. Pipelines are designed to serve selected customers under long-term contracts.

Among the more glaring weaknesses upon which the current coal pipeline bills rest is the notion that coal pipelines would be common carriers. Indeed, the legislative language forthrightly proclaims that all certified pipelines shall be common carriers. This statutory label will be of little consequence. Not a mile of pipeline will be built until the traffic that pipeline will carry is guaranteed by a long-term "take-or-pay" contract. The contract will then be used as the vehicle to finance construction costs. A pipeline will be designed to handle that amount of traffic which justifies the original investment and which maximizes operating efficiencies. With the "take-or-pay" contract, the user is committed to pay for transportation services regardless of whether those services are actually used. This guaranteed arrangement should be contrasted with the unit train tariffs under which railroads are required to commit their resources. Unlike railroads, through the "take-or-pay" device pipelines can foreclose any competition for the anticipated 20 or 30 year useful life of the facility. No railroad can win back the traffic lost to a pipeline, not by cutting rates, not through innovative service, and not by any other means.

To be sure, pipelines hold forth the potential for some hard bargaining as electric utilities play the railroads against the pipeline interests. But that kind of bargaining exists today among competing origin mines and alternative barge or rail routes. Railroads are exploring "take-or-pay" contracts themselves under opportunities recently provided by the I.C.C. (The legality of such contracts may still be open to question.) More to the point, though, any bargaining or competition would certainly not survive the construction of a pipeline or even the signing of a "take-or-pay" contract for coal transportation. The real questions for the Congress, therefore, are whether the pipeline bills are sound transportation measures and, if so, whether these bills can be reconciled with the well-documented environmental and water right concerns that have been brought to Congress' attention.

A Federal initiative to foster an alternative to rail transportation is not justified, not where government regulation already serves to artificially depress railroad coal rates. Through its "7% solution" the I.C.C. has quite effectively held down coal rates to a level below that of all other major commodities moving by rail. Coal is the number one commodity for the railroad industry. Coal offers a hope for this industry to rebound from its financial plight. I do not believe these pipeline bills can benefit our nation's transportation policy. Coal pipeline construction and operation cannot properly be equated with the establishment of a modern and efficient transportation system as pipeline proponents would have this subcommittee and Congress believe. The equation does not work. The regulatory climate in which railroads operate cannot be ignored. I would remind you that even under the most advantageous of rail deregulation proposals, substantial regulation would remain and very significant barriers to "free competition" would exist. The pipeline bills before you today attempt to cushion the devastating impact of pipeline construction and operation by entrusting to the I.C.C. and to a number of other agencies a long list of regulatory responsibilities. These regulatory responsibilities are put forward with the suggestion that the public's interest will be assured if each of the responsibilities is carried out. Additionally, these responsibilities are put forward with the thought that, if an effort is made to duplicate the regulatory burdens under which railroads operate, railroads cannot really be hurt to a point where the public's interest would suffer. I take issue with this entire line of reasoning, for it ignores the obvious dilemma of the railroads, who face continued regulation and the prospect of losing their most lucrative traffic. The public's interest will not be furthered by any additional drain on railroad revenues. Railroads and, in a less direct but equally crippling manner, all shippers who remain dependent on railroads will be hurt.

The pipeline bills presume that the public's interest will necessarily be promoted because I.C.C. approval of any pipeline is conditioned upon the assurance that pipeline rates will be lower than the corresponding rail rates. Most assuredly, this noble effort to guarantee that the public receives the touted benefits of pipelines is well intended. All experience and objective accounts of the pipeline scenario, however, make clear that the task of projecting construction costs, and therein the anticipated rate levels, is pure speculation. The Alaskan pipeline experience makes this point quite clear. Construction was undertaken with the understanding that the Alaskan pipeline system could be operational for a total cost of slightly less than one billion dollars. The final cost nine years later was about eight billion dollars. It is folly to expect the I.C.C. or any other agency to make a valid determination of pipeline rate levels years before construction is undertaken. Further, notwithstanding the initial cost determinations, the specific bills before this subcommittee provide obvious loopholes by permitting subsequent rate levels to be adjusted to reflect for inflation and unanticipated construction costs. With the "take-or-pay" features operative, the pipeline operators would of course have their traffic locked up.

OTA, in its assessment of the pipeline scenario has specifically cautioned against any presumption that valid cost comparisons between rail and pipeline operations can be made. In the explanation of the scenario, OTA notes that the need to "predict future construction costs, labor productivity, and inflation rates adds a major element of uncertainty to the relative costs of the two modes." (p. 16) In testimony before the House Commerce and Public Works Committees, the OTA Director acknowledged that the uncertainty was so great that one had to conclude that there was no evidence that pipelines would in fact be cheaper than railroads. OTA states that "areas of particular uncertainty include future construction costs and the appropriate price for water" (p. 50), and that, "the range of uncertainty associated with predictions of rail and pipeline costs in a given case is often as great as the difference between them."

While on the subject of relative costs, I would remind this subcommittee that the underlying presumption of pipeline proponents, that coal transportation would be cheaper by pipeline than by rail, is far from clear. Those proponents point to certain passages in the OTA report bearing on this question, since they are about the only objective appraisals that can be said to provide support for coal slurry advocates. But in fact, an examination of the entire OTA analysis of this cost question demonstrates that here, too, the case for pipelines is subject to significant doubts.

The OTA did find that, under certain circumstances and after making a number of assumptions having to do with the mines, the markets, the distances, the terrain, the water supply, the rate of inflation, and rail service, that the cost of slurry transportation might be less than the cost of rail transportation, if "one ignores regulatory distortions and larger social costs."

OTA examined four hypothetical cases in which pipelines and rails were considered. Two of the cases showed pipelines less expensive and two showed rails less expensive. In testifying before the House Interior Committee, the Director of OTA emphasized that this should not be taken to mean that pipelines would prove economical in 50 percent of all situations. Rather, all four cases involved a host of presumptions favorable to pipelines, and still they came out ahead in only two.

But even assuming that some cost justification might exist for individual pipelines, the competitive inequities burdening the railroads dictate that a stronger public interest lies in promoting rail transportation over coal slurry. The regulatory climate in which railroads operate demands such a result. Because of the common carrier status of railroads, pipelines could capture coal traffic from railroads even where the incremental cost of rail service is lower. OTA's analysis explains this point by recognizing, first that "rail rates contain an element of fixed system costs and losses which result from the requirement to maintain certain unprofitable services, e.g., low volume branch lines," and second that "even if pipelines were required to be common carriers in name ... they would still behave like contract carriers in practice due to the practical requirements imposed by ... their operation," OTA concludes that there would be "a distortion in relative rates, permitting selection of pipeline transportation in some cases where rail represents a lesser cost to society."

Thus even if slurry transportation would be cheaper in some circumstances, coal traffic could still be lost in others where it would be more expensive because of the regulatory constraints of common carriage imposed on railroads. Given OTA's appraisal, it is not possible to say that the public's interest will be promoted by a theoretical examination of the cost of service. There would not be a net gain to society, even if one assumes conditions most favorable to pipeline transportation.

Coal slurry promoters do not suggest that the public's interest can forego a financially strong railroad industry. They only go so far as to say that selected coal shippers or receivers need not contribute to the financial well-being of the railroad industry. To demonstrate their good intentions, the coal pipeline interests have put forward a statutory provision by which the I.C.C. is to assure the public's interest in healthy railroads will not be compromised by the diversion of coal traffic to pipelines. The I.C.C. is to exercise its responsibility to protect the financial health of railroads at the time individual pipeline proposals undergo I.C.C. review. This assurance that the I.C.C. will look after the financial interests of railroads in wholly inadequate.

Within the last several years, the I.C.C. failed time and time again to appreciate the significance of the financial crisis confronting the railroad industry and the significance of coal traffic in easing that crisis. In balancing the interest in healthy railroads against the interests of electric utilities, the I.C.C. has displayed insufficient attention to its statutory obligations to assure earnings sufficient to meet railroad needs. And, perhaps more importantly, if by inaction on the part of this subcommittee the myth of "competition" between railroads and pipelines is perpetuated, the I.C.C. will be incapable of balancing the public's interest in favor of rail transportation.

I turn now to the impact coal pipelines would have on railroads and on all shippers who will rely on rail transportation in the future. OTA's report on this probable impact paints a grim future for railroads if pipeline development is undertaken. OTA concluded that, in the year 2000, the rail industry would be deprived of $687.87 million in net operating revenues and the western railroads alone would be deprived of $628.3 million (p. 75). This loss is considerably more than the entire net operating income for the industry in 1976, and it exceeds the net operating income for the western railroads in every year prior to 1978. Those estimates, I might point out, were developed before the announcement of additional grant pipelines in the Southeast. The impact of pipeline development on rail shippers and communities served by rail would be equally great. All railroads have high fixed costs, a fact which can be both an advantage and a disadvantage. Fixed costs are not related to operations, so they do not rise when traffic rises. By the same token, however, fixed costs do not drop when business drops. Thus, if traffic levels are to decline and expanded rail capacity in the West is underused, a railroad will be forced to charge more for the services it still provides. And that means that virtually all rail shippers will face increased rates and probably poorer service. Obviously, however, regulatory and marketplace decision in choosing coal sources place practical limits upon the amount by which rates can be increased. Railroads cannot simply pass their problems along to their customers. As a result, the industry's unmet capital needs will increase and its service must inevitably decline.

We have recently witnessed the termination of service by one railroad in the Midwest and greatly reduced service by another in that same area of the country. Fears have been expressed that the Midwest is following the pattern already seen in the Northeast. The biggest problem confronting midwestern railroads is excess capacity. A railroad with such a problem has three options. It can disinvest; that is, eliminate excess capacity by abandoning track. Or alternatively, it can obtain new traffic which will make use of the excess capacity. Or, it can go out of business.

I submit that the second option is preferable, because it expands rather than contracts railroad service. It spreads the fixed costs out over more units to the benefit of all railroad customers.

Our nation's goal of expanded coal production and use is tailor-made to solve the problems confronting the railroad industry. Many of the Midwestern railroads now experiencing financial difficulties are not now major coal haulers. Coal represents new and profitable traffic for these railroads. Even one large diameter pipeline could dash that promise. One pipeline, for example, might carry 25 million tons of coal per year. In 1979, the Chicago & Northwestern's originated tonnage was slightly more than 42 million tons. The traffic borne by a single pipeline could increase the tonnage of the C&NW by more than 50 percent. If pipelines do take the coal that could help the Midwestern railroads, I cannot see where a comparably profitable source of new traffic might come from.

One more issue has been prominently involved in this debate, that of western water. The OTA's findings on this subject are ominous. And while the pipeline bills are offered with the assurance that water rights will be preserved, the language of the bills can only invite future controversy. In past testimony, pipeline proponents have characterized the coal slurry pipeline bill as a simple and innocuous measure. They suggest that the legislation does not provide water for a single coal slurry pipeline. Pipeline promoters are obviously seeking to allay the fears of many regarding the enormous water requirements of coal slurry pipelines. These are well-founded fears when you consider that one of the larger, planned pipelines would export six billion gallons of water each year from a region in which water is far from abundant.

I leave it to others who are more directly affected to expand upon this issue, though railroads are affected too. Railroad prosperity depends upon the prosperity of the shippers and regions we serve. I would note that OTA pointed out that "pipelines do compete directly with other possible future uses" of western water (p. 19), that the future character of these regions will turn largely upon the development of these uses of water, and that the Congress ought not imperil that development by enactment of legislation that is not only unnecessary but that will undermine the rail system of the country.

It is instructive to look at some of the specific findings of OTA on the water issue. OTA concluded that "in each of the potential coal slurry pipeline origin areas except Tennessee, demand projected for the 1985-2000 period exceeds the legally available supply" (p. 90). The character of the impact of a pipeline is illustrated as follows:

> "... [T]he Montana pipeline would take enough water to revegetate about 3,000 acres of sur-

> face-mined land in the Colstrip area in 1985. If all the water for the four pipelines carrying 74.5 million tons of coal per year were redirected, it could be used to mine 160 to 220 million tons of coal, reclaim 16,000 to 21,000 acres of surface-mined land, serve up to 10 coal gasification plants or up to 5 coal liquefaction facilities, or provide cooling for 2 to 4 powerplants" (p.90).

As this statement indicates, one of the consequences of the establishment of pipelines would be to inhibit the future mining of coal and shale, a consequence obviously at odds with national energy and synthetic fuels policies.

In conclusion, I emphasize that the pipeline bills are not energy legislation. They are measures which would promote an alternative method of transportation of coal. They will not produce more energy. They will not permit consumption of more energy. They represent absolutely no progress in dealing with the energy problem. In fact, they will result in the unnecessary expenditure of energy. Maintenance and operation of the railroads at a lower capacity due to loss of traffic to coal slurry pipelines represents a waste of energy. Unnecessary construction and operation of those pipelines is a most flagrant waste of energy. And a final thought, OTA's report concludes that rail transportation is significantly more energy efficient than coal pipelines, only 390 BTU's per net ton mile for rail versus 610 BTU's for pipeline. Thus, even on the basis of energy policy, coal pipelines make no sense.

Mr. **Florio**. Thank you very much.

Mr. Madigan.

Mr. **Madigan**. Mr. Dempsey, if it were profitable to construct a pipeline and to operate that coal slurry pipeline at a rate below the railroad for the same type of service, the railroad itself would be in the perfect position to go into that business; would it not?

Mr. **Dempsey**. That is right.

Mr. **Madigan**. They already have the rights-of-way; they don't have to buy rights of way?

Mr. **Dempsey**. That is right, and that possibility had been investigated some years ago by one of the railroads that principally would be involved. They concluded it would be a poor investment of their resources.

Mr. **Madigan**. Should the economics change and the Congress enact legislation to provide for the construction of these pipelines, could the railroads go into the business at sometime in the future?

Mr. **Dempsey**. Well, the railroads, as you observe, in some situation of course the routes would be circuitous, in other situations no change in the law would be necessary for reasons that you point out. Changes in economics we think would be necessary, of course.

Perhaps I answered too swiftly. They are in a position to do that because of their rights-of-way. On the other hand, one doesn't likely go into competition with oneself and duplicate facilities that are in place. It seems to me that is one of the weakest point in support of the coal slurry pipeline legislation, it is really all that we are talking about is duplicating transportation facilities that are already in place.

To the extent that that isn't the case, as in the Black Mesa situation, to the extent that isn't the case, coal slurry pipeline operations would have no difficulty at all in building their pipelines.

Mr. **Madigan**. One pipeline that does exist, Black Mesa, is it owned by a railroad?

Mr. **Dempsey**. It is owned by Southern Pacific. Southern Pacific had an option, they built a new line. They could have built a new railroad to serve that facility, but they would have had to do so because there was no facility in place. It is mountainous terrain down there and they concluded that all things considered, the cost of construction of a new rail line would have been too great in relation to the cost of construction of a coal slurry pipeline and certainly there can be situations like that where the rail facilities are not in place, their economics might dictate a coal slurry pipeline.

If that is the case, as I suggest, I know of no one who thinks there would be any problem getting a pipeline built.

Mr. **Florio**. Would not that process be what the advocates of this legislation would be saying is to be achieved? The only difference is that the decision would not be made in this case by the railroad, it would be made by ICC. They would only grant certification to go forward with the initial process of eminent domain, where all of the considerations, and certainly the economics and the impact upon the transportation network, would dictate that there is a desirable goal to be achieved by authorizing the construction of a pipeline?

Mr. **Dempsey**. Well, let me say, first of all, that I don't think I have ever heard anyone suggest that the legislation is needed in order to build a pipeline where no existing transportation facilities reach, and none of the pipelines I know of that have been proposed of that character they call duplicating existing rail or rail barge transport.

What they say is one way or another these bills all provide adequate safeguards. My response to that comes on several different levels. One is that I don't see how you can provide any kind of adequate safeguards with respect to the kind of cost estimates that have to be made in the face of the terrible unpredictable element of cost that reach out over a 25- to 30-year period that has to be done.

Again, I refer to the Alaskan pipeline. If the ICC would have certified that pipeline on the theory of that, the original cost estimate of $1 billion would have been more or less met, it would have been off by only 800 percent. But once the certification is made and the pipeline is constructed, that pipeline is going to be in business whether it has to go into a bankruptcy sale to write down the cost. It would go into business and be in business under a 25- or 30-year contract that is going to lock up enormous quantities of coal.

Mr. **Madigan**. If we accept the argument of the pipeline opponents that they would be able to provide coal to a utility someplace from a mine mouth, for a transportation charge less than the railroad, and further accept their argument that the beneficiary of that transportation is the electric consumer, the household, then if the coal business is gone, the result is that the price of food has to be higher because the price of transportation for the fertilizers and the grown crops are going to be higher, is that correct?

Mr. **Dempsey**. That is exactly right. It is the point that you make better than I and that Representative Andrews made better than I can. It all is a function of the high fixed costs of the railroad plant. We have a very high fixed cost industry, as you know.

So that plant remains in place, and as Representative Andrews said, a very simple example is if you are running two trains over that a day instead of one fixed cost, costs are distributed over the people that rely on two trains instead of one.

I think one other point, it is fairly esoteric, I think you have to think about it, it is terribly important, made by the OTA study, it has to do with whether assuming favorable hypothesis for coal slurry pipelines, whether there would be situations in which coal would be moved over coal slurry pipelines at a rate lower than the rail rate, but a price higher than the rail cost, and it really goes to the point that in a way you are saying, Representative Madigan, and the the answer OTA gave the answer, yes indeed, that would happen.

The reason is that the railroad is a common carrier, it must serve all of these customers, it must maintain some relatively unprofitable services, and therefore, the rates that it charges for transportation of coal in many circumstances would be higher than if all they had to do was transport that coal, but the costs are lower.

So you get a situation then in which the pipeline being able to concentrate only on the most lucrative, efficient, profitable business, might be able to charge rates lower than rail coal rates for the same movements, but at a cost that is actually higher and the net then is a disadvantage to the whole consuming population, not an advantage even though it might appear to be an advantage.

Mr. **Madigan**. Thank you.

Mr. **Florio**. Mr. Dempsey, obviously your testimony, as always, is clear and very helpful. A new element that has been brought into the whole discussion from our previous discussions a couple of years ago on this legislative proposal is that the pipeline initiative is stretching east, as opposed to being exclusively regarded as a western question.

To the degree some of us who are in the Conrail area hope that Conrail is going to be able to survive, it seems to me the coal traffic is going to be the key to survival. To have the irony of Federal legislative action going in a direction that will counterbalance the Federal action in the form of money for Conrail in the last number of years, does not seem to make too much sense.

I, and other members of the committee will be looking closely at the impact of this legislation on the well being of the Conrail system.

Mr. **Dempsey**. I just want to add one thing to that, Mr. Chairman. Of course, we agree with that and I would point out that it is true also in the Middle West that one pipeline could have taken all of the coal transported by the Rock Island in the last year of its operation.

As to Conrail, we have made a study just to verify that the Conrail system would be able to transport additional coal projected by conversion of 40 to 50 utility plants in the East and the Middle West and there can't, as you might expect with that great excess capacity in the system, there is no question about if all that coal is transported by rail, all on Conrail, Conrail would only be back up to the point it was 10 years ago with respect to the transportation of coal. It is very important to Conrail and it is very important to some of the hardpressed middle western railroads.

Mr. **Florio**. Thank you very much. The committee will stand in recess for approximately 10 minutes.

[Brief recess.]

Mr. **Florio**. The committee will come to order.

We are very pleased to have with us the chairman of the Legislative Committee of the Railway Labor Executives Association, Mr. James Snyder.

For the record, will you introduce your colleague.

Mr. **Snyder**. I have on my right here, Mr. W. G. Mahoney, counsel for the Railway Labor Executives Association.

I would like to request my statement be submitted for the record.

Mr. **Florio**. Without objection.

STATEMENT OF JAMES R. SNYDER, CHAIRMAN, LEGISLATIVE COMMITTEE, RAILWAY LABOR EXECUTIVES' ASSOCIATION, ACCOMPANIED BY W. G. MAHONEY, COUNSEL

Mr. **Snyder**. Before I get into my brief statement, I would like to thank the chairman and members of the committee very much for preparing and making available this hearing to the various persons interested in this legislation. We did not agree with the Speaker's decision on this for joint referral, and I know through your efforts and that of other Members, this hearing has been brought about. We are grateful to you for it.

My prepared testimony is addressed to the subject of coal slurry pipeline legislation generally, and H.R. 4370 as it was introduced in the House in June 1979. That bill was amended in the Public Works Committee by limiting the pipeline companies' power of eminent domain to railroad rights-of-way, providing adjoining State veto in the protection of its water rights, and shifting approval authority from the Secretary of the Interior to the Interstate Commerce Commission.

H.R. 6879 pretty much tracks the Public Works Committee version of H.R. 4370 with the addition of a two-step ICC procedure for securing easement or right-of-way authority across a railroad right-of-way.

H.R. 7982, which I am informed is referred to as the Udall substitute for the Public Works Committee amended H.R. 4370, is a reversion to the original H.R. 4370 with the exception of the substitution of the Interstate Commerce Commission for the Secretary of the Interior. As such it would authorize pipeline company eminent domain over farmland as well as railroad rights-of-way and would eliminate an adjoining State's right to protect its ground water supply. H.R. 7982, therefore, is more detrimental to the public interest than is H.R. 4370 as amended by the Public Works Committee and—except for the substitution of the ICC for the Secretary of the Interior—is subject to each of the objections set forth in my prepared testimony, from which I would now like to read a few excerpts.

I appear before you today to express the unanimous opposition of the membership of RLEA to legislation which seeks to extend the power of Federal eminent domain authority to privately owned coal slurry pipeline companies.

It is our conviction that the passage of such legislation in these times would not be in the public interest.

The RLEA has testified many times before on the subject of coal slurry pipeline legislation. H.R. 4370 and H.R. 7982 are virtually identical to those earlier legislative proposals which failed enactment. The record already made on this subject is just about the most complete record available on any piece of legislation ever presented to the Congress. Among the most significant pieces of evidence in this record is the report of the Office of Technology Assessment on coal slurry pipeline, the OTA report.

The Department of Transportation testified before the Committee on Interior and Insular Affairs on July 20, 1979, that the railroad industry could handle the present and future coal transportation needs of this Nation. It seems clear to us that the OTA report found no need for slurry pipelines. The OTA report found that under certain limited circumstances pipeline economies would result in savings beneficial to the coal mine operators, the electric utilities, and the pipeline operators, but the extent to which those benefits would reach the consumer is unknown.

Of most direct importance to the RLEA are those conclusions of the report which indicate that from 1985 to the year 2000 some 12,000 to 18,000 railroad jobs would be lost, while some 12,800 individual employees would be unemployed. While the number of jobs in the construction industry would be increased, these jobs would be temporary in nature as compared with railroad jobs and would, of course, cease with completion of the construction of the pipeline. Such jobs would contribute but temporarily to the region in which they were located, whereas those employed by the railroads normally settle permanently in a particular region, thereby contributing permanently to the development of the community in which they are found.

The testimony and documentary evidence which have been presented to the Congress over the past 2 years demonstrate that coal slurry pipelines are not needed; they are environmentally unsound; they represent a specialized, inflexible use of energy; their construction would contradict established congressional policy of revitalizing the Nation's railroads; and, would provide private carriers the combined advantages provided private and common carriers without the attendant disadvantages of either. That testimony and evidence also demonstrate that railroads can meet the increase in demand for coal transportation at rates probably lower, but at least comparable to pipeline rates; and, that railroads are at least as energy efficient, if not more energy efficient than pipelines.

However, if pipelines are afforded Federal eminent domain authority, railroads will be placed at a disadvantage that seriously will handicap their ability to compete. The only way to avoid the destructive competition which would result from private coal slurry pipeline companies' use of eminent domain authority is to recognize now that pipelines do not offer needed or improved coal transportation, while at the same time they would undermine the financial stability and service availability of the Nation's railroads. We respectfully submit that that is too high a price to pay for an alternative system of transportation that can produce no measurable improvement over what can be provided by the existing railroad system.

In closing, I would like to point out that this subcommittee in a detailed report of some 40 pages issued in 1978 following extensive hearings on H.R. 1609, a bill virtually identical to H.R. 4370 in its basic purpose and effect, concluded: "Federal promotion of coal slurry pipelines in the manner contemplated in H.R. 1609 would undermine the national transportation policy and, with it, the system of common carriage."

Mr. Chairman, RLEA has a group of directors from the different States where the various pipelines are proposed to be built. Year after year or every 2 years, at least, States like my State, Georgia, Colorado, Kentucky, South Dakota, the legislatures have rejected this. Even the State of Texas has approved the construction of a pipeline, provided you do not take any available water from Texas.

The States have been very active in this and repeatedly have been denied by the legislatures, the right of eminent domain.

We appreciate this opportunity and are ready for any questions you might have.

Mr. Florio. Thank you.

Mr. Madigan.

Mr. MADIGAN. Mr. Chairman, in view of the hour, I cannot read the face of the clock, but I think it says 10 after 12, everybody's lunch hour. I would like to thank Mr. Snyder for coming before the committee this morning and sharing his thoughts, and saying to the gentlemen at the witness table that we are always interested in any comments you may have to make to the committee, including those of Mr. Mahoney; and we thank you for being here.

Mr. FLORIO. I, too, express my appreciation. I would like to note why you are here and why you should be here. Representation has been made as to the advantages of the pipelines, that notwithstanding the fact they are much capital-intensive, cost quite a bit to put in, the argument is made in the long run they are less expensive and more beneficial than railroads. But if they are capital-intensive, it seems the place where the savings will occur would be on the labor aspect. I do not think we can be oblivious to the impact on the work force.

You have a very legitimate concern, as does this Congress, as to the possible unemployment that might occur in shifting the transportation to a different mode.

We thank you for your testimony.

The committee has a vote. We will recess for the vote, after which time we will come back to hear our final witness.

[Brief recess.]

Mr. FLORIO. The committee will reconvene. There was a vote preceding and Mr. Madigan asked that we go forward and he will return in a few moments.

Mr. Skedgell, we welcome you to the committee. We appreciate your patience, it has been a long morning. We look forward to hearing your testimony, and ask that you introduce your colleague.

STATEMENTS OF DAVID A. SKEDGELL, PRESIDENT, AND CHIEF ADMINISTRATIVE OFFICER, SLURRY TRANSPORT ASSOCIATION; AND JAMES W. MOORE, PH. D., ON BEHALF OF STA

Mr. SKEDGELL. Thank you, Mr. Chairman.

Before I introduce my colleague, let me say that we had to send our statement out of the building to be printed. When it came back this morning it had on the last page some sort of newsletter and prayer for the National Presbyterian Church here in Washington stamped to the back of it. I think that we have removed all the copies but for those who say we don't have a prayer, it is attached to our testimony.

Mr. Chairman, with me this afternoon is Mr. James W. Moore, professor of civil engineering at the University of Arkansas. Dr. Moore had done extensive research on problems associated with the disposal of coal slurry waste water and is currently in the process of preparing a report on this subject to the Office of Water Research and Technology of the Department of the Interior.

Dr. Moore has been retained by the Slurry Transport Association to appear before the committee today and discuss the results of his research and answer questions related to the environmental aspects of coal pipeline technology.

Mr. Chairman, in lieu of my original remarks I had prepared, I think that I could best serve the interest of the committee by perhaps comments on a number of issues which have arisen today and I will do so as quickly as I can.

Mr. FLORIO. Your statement will be put in the record.

Mr. SKEDGELL. Yes sir, I realize that. Thank you.

[Testimony resumes on page 166.]

[Mr. Skedgell's prepared statement follows:]

STATEMENT OF DAVID A. SKEDGELL
PRESIDENT AND CHIEF ADMINISTRATIVE OFFICER
SLURRY TRANSPORT ASSOCIATION
BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
U.S. HOUSE OF REPRESENTATIVES
COAL PIPELINE LEGISLATION
AUGUST 28, 1980

Mr. Chairman and members of the Committee, I am David A. Skedgell, President and Chief Administrative Officer of the Slurry Transport Association, headquartered in Washington, D. C. The Slurry Transport Association is an organization of some seventy-five domestic and foreign companies and individuals with an interest in the construction and operation of slurry pipelines, particularly those which carry coal.

We are grateful for the opportunity to discuss coal pipeline legislation currently before the House because we are convinced that coal slurry pipelines can be a significant contributor to the resolution of America's, and indeed the world's, energy problems, and we believe that the legislation before the House is essential if this proven technology is to be put to work.

The recent surge of interest in coal slurry pipeline technology can be traced to its inherent advantages. It is a system for shipping coal which is efficient and environmentally sound and which will help hold energy costs down. Experience has thus far convinced us, however, that the national energy transportation system will never enjoy the benefits of this new technology without the right-of-way authority embodied in the coal pipeline legislation now pending before the Congress.

I. National Energy Crisis

There is certainly no need to lecture this Committee on the fact that this nation faces a crisis in energy. We must reduce our reliance on imported oil. To do that we must increase our use of our coal -- our most abundant form of energy. Coal slurry pipelines can help us use more coal -- sooner and more cheaply.

Coal is available now. Coal pipeline technology is available now. We don't need billions of government dollars or ten years to get moving. We are ready now. One thing stops us -- the lack of the power of eminent domain. Because of the lack of that power -- which interstate natural gas pipelines and interstate electric transmission lines have -- our competition, the railroads, use their rights-of-way to delay or block most coal slurry projects. The railroads are preventing us from competing -- preventing us from serving the nation's need during this crisis.

The issues before us today are simply competition in transportation and increasing the use of our domestic energy supplies -- both at home and abroad.

Our purpose here is to urge you, the Congress, to make the benefits of coal pipelines available to the American consumer and to the world via export projects. This is a time of serious energy shortages and rising fuel prices. By acting now to facilitate the construction of an efficient and economical system of pipeline transportation, Congress will underscore its determination to replace foreign oil with domestic coal.

II. Coal Pipelines

Ever since eminent domain legislation was first proposed in the early 1960's, Committees of Congress have studied the issue closely. Throughout those rigorous examinations, the basic facts about coal pipelines have remained unchanged. They are feasible, they can be the best means of transporting large quantities of coal over long distances and they offer an option that should be available to the coal producer and the coal user. Indeed, the passage of time has enhanced the case for coal pipelines as a necessary part of the coal transportation system. Unfortunately, the pipelines proposed as much as six years ago are not hauling coal today.

The economic benefits of coal pipelines can be achieved with the least harm to the environment. Coal pipelines are noiseless, safe and invisible. They do not block traffic, divide towns or create hazards at grade crossings. The land through which these underground pipelines pass can be restored to productive use after a brief construction period. Throughout the world, slurry pipelines have compiled an excellent record for safety and reliability. Coal slurry is safe because it is nontoxic and nonflammable.

In addition, coal pipelines are sheltered from inflationary cost increases and can help stabilize rising energy costs. About two-thirds of the cost of operating a pipeline stem from the cost of construction and are fixed. On the other hand, railroads have a cost structure heavily weighted by such inflationary factors as labor and fuel. Of equal importance, pipelines are the only practical alternative to railroads in the long-distance, overland transportation of coal, and they can provide the discipline of competition that an expanded coal market will not otherwise have. Without coal pipelines, there will be no competition in the captive rail markets in most parts of the country.

There is nothing new or experimental about coal pipelines. The technology was proven in Ohio twenty years ago. From 1957 through 1963, a 108-mile coal pipeline operated in Ohio. Faced with such competition, the railroads introduced the unit train. This produced a price reduction of almost 50 percent on coal traffic throughout Ohio. Customers far beyond the borders of Ohio enjoyed lower rates for electric power because of this coal pipeline's existence.

Encouraged by the success of that first coal pipeline, President Kennedy asked Congress in 1962 to help the depressed coal industry in Appalachia by providing eminent domain for other pipelines. The then-Secretary of Interior, Stuart Udall, urged, in words that are timely today, that coal pipelines be added "to the arsenal of tools available to our economy to combat rising energy costs."

Since then, only one coal pipeline has gone into operation. The Black Mesa Pipeline moves coal 273 miles across Arizona to the Mohave Generating Station in Nevada. The citizens of Arizona, Nevada, and California have received dependable electric service from that coal since 1970.

There are presently eight coal pipeline projects which are being proposed. These projects range in size from a Utah to Nevada project, approximately 185 miles in length which would deliver 11.6 million tons of coal annually, to an Illinois basin/Appalachia to Georgia/Florida project which is 1500 miles in length and could deliver up to 55 million tons of coal per year. If all the coal pipeline projects currently proposed were successful in being completed, by the late 1980's the coal pipeline industry could be delivering up to approximately 170 million tons of coal per year to U. S. and foreign markets.

In addition to lowering of consumer costs for electric power, coal slurry pipelines provide the key to massive growth in U. S. steam coal exports between now and the year 2000, provide a natural interface for the production of synthetic fuels, particularly synthetic gas, and furnish impressive environmental plusses over other transportation technologies, and particularly with respect to water use in certain areas of the nation.

III. Coal Slurry, A Technical Description

Coal slurry pipeline technology involves moving finely ground coal mixed with water or some other medium through a pipeline system connecting a coal producer and a coal user. Water is the principal medium being considered to move coal in the major projects to date; however, many other means such as methanol, CO_2, and oil are also being explored. The Office of Technology Assessment in its March 1978 report describes the technology in the following manner:

> "Coal is assembled from a mine or group of mines at a single point where mixing, clearing, or other benefication may take place, and where the slurry is prepared. Preparation begins with impact crushing followed by the addition of water and further grinding to a maximum particle size of 1/8 inch. More water is then added to form a mixture that is about 50 percent dry coal by weight, and the resulting slurry is stored in a tank with mechanical agitators to prevent settling.
>
> "The slurry from the agitated storage tanks is introduced into a buried steel pipe and propelled by reciprocating positive displacement pumps located at intervals of approximately 50 to 150 miles, depending upon terrain, pipe size, and other design consideration.
>
> "At the downstream end of the pipeline, the slurry is again introduced into agitated tank storage, from which it is fed into a dewatering facility. Dewatering is accomplished by natural settling, vacuum filtration, or by centrifuge, and then the finely ground coal still suspended in the water can be separated by chemical flocculation. After additional drying by the application of heat, the coal can then be stored, transported further by other modes, or introduced directly into boilers.

The technology of moving solids in slurry form through a pipeline system is well established throughout the world. In addition to the modest experience with slurry lines in the United States, there are many projects around the world where copper and other materials are transported by this technology. Even though this is "shelf" technology, a great deal of research is underway on many issues related to slurry pipelines. For example, one innovation being considered by Continental Resources for their project is the batching of coal in order to serve a variety of coal to the individual needs of power plants on the system.

IV. Recent Economic and Technical Studies of U. S. Coal Slurry Pipeline Potential

Because coal pipelines can offer competition to the monopolistic position of the railroads with respect to coal hauling, there has to be a net economic benefit. A recent study (December, 1979) done for the Department of Energy by ICF, Incorporated, offers a number of conclusions with respect to coal slurry pipelines. The main conclusion of the paper is that the greatest savings from coal slurry pipelines may be the indirect savings resulting from increased competition instead of the direct savings stemming from any particular route. To the extent that the threat of slurry pipeline competition acts to keep rail rates low, then savings can result even if the coal is hauled by rail. Other conclusions of the analysis are:

- Slurry pipelines are economic over some, not all routes.
- While slurry pipelines may appear to have a cost advantage over some routes, insufficient volume

demand could negate or postpone the viability of the pipeline.

- Slurry pipelines are forecast to transport between five and nine percent of the total coal transported in 1990, ranging from about 70 to 126 million tons of coal.
- Non-slurry modes of transport, particularly railroads, will continue to grow regardless of slurry pipelines. Net national savings tend to exist with a network of slurry pipelines, but this is not always true.

The conclusion of the ICF study concerning the likely amounts coal pipelines would carry re-enforces our often stated contention that slurry lines will carry far less than half of the predicted increases in coal production, thus hardly being a threat large enough to put whole railroad lines out of business.

More importantly, the study predicted that the operation of eleven coal slurry pipelines could save utilities and other coal customers billions of dollars annually. The study's basic conclusion was that the savings, in the form of reductions in transportation costs and other expenses, would emerge from competition between slurry lines and railroads. Even under the most modest scenario, coal customers would save between $100 million and $1.1 billion in 1995. The scenario which yielded the largest savings showed cost reductions of up to $5.2 billion.

In February of this year, the President's Commission on Coal, chaired by West Virginia Governor John D. Rockefeller IV, said in its final report that there were at least three major advantages to the use of slurry pipelines:

(1) that underground routes do not disrupt communities;

(2) that although pipeline construction requires a large capital investment, operating costs -- which are subject to the whims of inflation -- are low; and

(3) on a cost-per-ton basis, slurry pipelines are highly competitive with railroads.

Finally, Mr. Ulf Lantzke, Executive Director of the International Energy Agency in Paris, writing in the Winter 1979-80 issue of Foreign Affairs magazine on "Expanding World Use of Coal," cites a study which measures the effort needed to reach U. S. coal use goals by the year 2000. They include:

-- a 13-fold increase in western coal production;

-- a doubling of eastern underground mining;

-- a combination of nine new slurry pipelines and expanded rail facilities involving 1,400 new coal unit trains and 3,200 new conventional trains;

-- 500 new coal barges and 9,400 new coal trucks;

-- a major expansion in port facilities to handle large coal-carrying ships.

V. Coal Pipelines: Key to Coal Export Markets

Mr. Chairman, a new federal task force was formed to find ways in which U. S. steam coal exports can be increased to between 80 and 100 million tons annually by the end of the 1980's, contrasted with the 5 million tons shipped abroad last year. As we understand it, the Task Force aims to create 38,000 new jobs for coal miners, and an additional 190,000 jobs in mining communities.

Indeed, the formation of this Task Force is timely. In a most recent study of the subject (May 1980), the Report of the World Coal Study (WOCOL) under the direction of Professor Carroll L. Wilson, researchers state that "a massive effort to expand facilities for the production, transport and use of coal is urgently required to provide for even moderate economic growth in the world between now and the year 2000."

The WOCOL study ends on a cautiously optimistic note. It states:

> "Coal can provide the principal part of the additional energy needs of the next two decades. . . . But the public and private enterprises concerned must act cooperatively and promptly, if this is to be achieved. Governments can help in particular, by providing the confidence and stability required for investment decisions, by eliminating delays in licensing and planning permissions, be establishing clear and stable environmental standards, and by facilitating the growth of free and competitive international trade. . . ."

However, the study also notes some of the problems faced in mounting such a coal use effort as well as some of the actions which must be taken to make that use a reality. Many of these findings have direct application to coal pipelines and their potential contribution in assisting the U. S. in becoming more self-reliant in energy:

> "Given the long lead times involved both for coal using and coal producing projects, the required expansion of coal demand and coal trade will be realized by the year 2000 only if both producers and consumers are willing to make commitments in the early 1980's, even before all the uncertainties about future coal supply and demand are resolved. Unless these commitments are made, there is a real risk that the bulk of the new facilities needed to meet the required acceleration in demand and trade from 1985 onwards will not be available in time. . . ."
>
> "A significant expansion in coal export facilities will be required to meet the projected increase in demand for exports. . . . The diversity and geographic distribution of projected steam coal export markets from the United States would necessitate the establishment of new coal export facilities on the Gulf and West coasts, as well as new and expanded facilities on the East Coast, where the bulk of coal export facilities now exist. . . ."

> "Perhaps the most important aspect of all in looking at future transport of coal is the need to consider transport within the context of a coal chain. Coal transport systems - inland transportation, export ports, maritime transport, and local distribution - are the essential links between producers and consumers although frequently independent of both. Unless transport development is integrated with the planning for mines, power stations, and other coal facilities, delays will occur and coal trade will fail to expand at the rate required."
>
> "Usually, coal in bulk form is transported in ships as dry lumps. . . . Transporting the coal overseas in other forms would be more economic if by doing so more rapid or cheaper loading or discharge methods could be used or a higher energy density of the cargo achieved. Because the ocean transportation costs represent about 20-30 percent of the CIF (cost, insurance and freight) costs of the coal, there is strong incentive to search for ways to lower costs. . . ."
>
> "Among the alternatives under consideration are coal-water slurries and coal-oil slurries. Although the use of coarse slurries merely as a technique for rapid loading and discharing at the ports has been proposed, a more significant development would be the loading and movement of slurries transported by pipeline from inland mines to the ports."

The basic conclusions of the U. S. port study, in part, are that (1) a significant expansion of U. S. port capacity would be required to meet coal demand for all WOCOL cases; (2) the diversity and geographic distribution of steam coal exports would require new coal export facilities on the Gulf and West coasts, and also on the East coast, where the bulk of the current exports originate; and (3) regulatory and institutional considerations could be the most significant constraints to expanding existing ports or constructing new ones.

Coal slurry pipeline systems can substantially help mitigate the large capital and operating costs which must be incurred if the U. S. is to reach coal export goals in the coming decades.

The transport of slurried mineral commodities by ocean-going vessels was pioneered in the late sixties with the hope and conviction of a few individuals that such a system would offer definite economic advantages. The economic slump that followed the oil embargo of 1973 depressed the market for the low value, high volume commodities that are ideal for this mode of transport - iron ore and coal.

Spiralling oil prices will continue to inhibit economic development in general. However, the time has come when the prohibitive cost of oil increases the demand for coal as an alternative energy source. Such a situation can only be enhanced if shipping costs are maintained as low as possible.

A slurry transport system can make the development of remote mineral resources practicable where conventional systems are not physically or economically feasible. Ships equipped for slurry handling require only a pipeline connection to a simple mooring facility for loading and discharge. The need for expensive docks, cranes, ship loaders and unloaders, as well as conveyors, stackers and reclaimers is eliminated.

Drawing from technology developed and used by the offshore oil industry and by the slurry transport industry, it is now possible to directly transfer slurryable commodities from pipeline to ship to pipeline. This transfer can be accomplished on virtually any coastline utilizing offshore terminals which minimize the transport distance and overall transport cost.

A slurry import-export terminal would normally have two or more pipelines running to a shore based storage area for unloading or loading a ship's cargo. One line would handle the slurry while the other would return the conveying fluid. The terminal can be designed to handle any size ship along virtually any coastline making it possible to use the most economical size of ship for the cargo being transported.

Also, the slurry terminal with a ship to shore pipeline represents an attractive low cost alternative to development of a deep water port with conventional loading/unloading systems. It can be built in a shipyard and installed at remote locations for predictable costs. Relocation of the terminal is possible if the operation has a limited life.

A slurry terminal for discharge or loading of bulk carriers established offshore eliminates expensive wharf facilities always necessary to accommodate these large carriers. Also, conventional bulk loading and discharging facilities create considerable air and water pollution in the form of dust being blown from the material being handled. There is also the constant loss of product due to spillage. Aside from the environmental impact, this condition results in economic losses. A closed-loop slurry discharge system eliminates all the air and water pollution problems as well as cargo waste that is inherent in a conventional system.

Slurry shipping can also eliminate the need for expensive dredging of channels where draft limitations preclude harbor development. As noted earlier, ships can be loaded or discharged at a monobuoy some distance from shore, via submarine pipeline. This method of loading and discharging has been employed very economically in the oil trade, allowing the size of tankers to increase as fast as technology permits without the tremendous expense of expanding loading and receiving facilities or building huge new ports, that would more than upset the economic advantage of increased tanker size (today the largest tankers can carry over half a million tons of oil with drafts approaching 100 feet).

Extensive studies have been made of slurry shipping by the U. S. Maritime Administration and others. The studies have shown that integrated slurry shipping systems are viable and technically and economically feasible. In fact, at least one European country (Holland) is seriously studying a slurry terminal to accommodate future imports of coal. In a paper recently presented at the Fifth International Technical Conference on Slurry Transportation, I. D. Hoogendoorn of SHV Nederland nv, indicates the following advantages of a slurry versus conventional terminal:

> "The greatest advantages of a slurry terminal over a conventional terminal will be the simplicity of the system, as it consists of pipes and pumps, which provide more opportunities for automation than mechanical handling equipment as the process industry shows us. And for the Rotterdam area where yearly more demanding antipollution standards will be developed a slurry terminal will be more adequate to meet those standards than a conventional terminal fitted with modern dust suppression systems."

Mr. Hoogendoorn also says that from the feasibility studies made to date for a conventional versus slurry terminal, the slurry facility possesses superior economics. He reports that a slurry terminal may be built about 30 percent cheaper than a conventional terminal and that the entire cost structure, as a percentage of the final costs per throughput ton are more than 25 percent less than the conventional system.

VI. Coal Pipelines Interface with Synthetic Fuels

Coal slurry pipelines have the potential to assist in mitigating adverse socio-economic impacts of major energy projects, particularly coal gasification projects, by allowing such projects to be sited far away from mine operations. In this manner, synthetic fuels facilities can be constructed in much greater proximity to the markets which they will serve. In many instances, this can mean a lessening of the need to use Western water supplies for such synthetic projects.

One such new project, Northwest Integrated Coal Energy System (NICES), is proposing to move subbituminous coal from Wyoming to Boardman, Oregon, where it will be used as a feedstock for a major coal gasification plant.

The natural interface between slurry and synthetic fuels has long been recognized. In testimony before the House Interior Committee in July 1979, then DOE Deputy Secretary John F. O'Leary said:

> ". . .(T)he projections of coal consumption . . . do not reflect the large coal requirements needed to support the Administration's proposed synthetic fuels policy. The feasibility and viability of many synthetic fuels plants may depend on the ability to provide large volume transportation of coal over long distances. Such conditions particularly favor coal slurry pipelines. Further, coal slurry lines avoid the undesirable social burdens that unit train movement of coal over long distances by railroad can impose on towns along the transportation route."

VII. Summary of Coal Pipeline Projects

At present there are seven other major coal slurry pipeline projects in advanced stages of pre-construction in the United States.

1. The Allen-Warner Valley Energy System is a power plant and pipeline system proposed by Nevada Power to transport coal from Utah to Nevada to supply two new power plants. An environmental impact statement is under review at the U.S. Department of the Interior. The proposal calls for moving 11.6 million tons of coal annually over 183 miles of isolated, high, dry plateau.

2. Energy Transportation Systems, Inc. (ETSI) expects to begin construction soon of a 1,387 mile pipeline system to move at least 25 million tons of coal annually from the Powder River Basin in Wyoming to points in Oklahoma, Arkansas, and Louisiana. Many of you may know that ETSI won a long and costly series of 67 court decisions to acquire right-of-way across railroad property. For those of you who are not familiar with ETSI, it is a partnership of Bechtel, United Energy Resources, Kansas-Nebraska Natural Gas, and Lehman Brothers Kuhn Loeb.

3. The San Marco Pipeline is a joint venture of Houston Natural Gas Corporation and Rio Grande Industries, a holding company of the Denver and Rio Grande Railroad. This 900-mile pipeline will move about 10 million tons of coal

annually from southern Colorado to the Houston, Texas, area. The system could be built as soon as water supplies are secured, since Texas, where almost all of the line will be located, has eminent domain coverage for coal slurry pipelines.

4. Continental Resources Company proposes a major eastern-states system, drawing on coal from Illinois, eastern and western Kentucky, Ohio and West Virginia. This 1,500-mile system will move between 25 and 55 million tons of coal annually to electric utilities in Georgia and Florida and for export from Atlantic and Gulf Coast ports. Right-of-way acquisition is the major roadblock to construction of this system.

5. The Texas Eastern pipeline from the Powder River Basin 1,260 miles to Houston, is planned for moving 22 million tons of coal annually. This project of the Texas Eastern Corporation of Houston has been delayed by the Wyoming Governor who vetoed legislation passed by the Legislature to grant the project access to water for the slurry process.

6. Pacific Bulk Transportation project, proposed by Boeing Engineering and Construction Company, would deliver 10 million tons of coal annually 650 miles from central Utah to around Oxnard, California, for export to Japan, South Korea, and Taiwan. Boeing proposes to construct a major coal export

facility -- which could be the first on our West Coast -- and to build a fleet of 350,000-ton coal "tankers" to handle slurried coal.

7. Finally, the Virginia Electric & Power Company (VEPCO) is investigating a slurry pipeline to serve its coal-fired generating stations in Virginia. It would deliver 5 million tons of coal annually from extreme western Virginia some 350 miles to the Norfolk area. One impetus for VEPCO's plan is the fact that the cost of rail transportation of coal from western Virginia to the Tidewater area is akin to moving a coal supply from Wyoming to Texas. VEPCO, like many utilities, is examining means of achieving a more cost effective fuel supply.

VIII. The Western Water Issue

In the debate between proponents and opponents of federal eminent domain for slurry pipelines, the issue of Western water has been charged with emotionalism and exploited to full advantage by those who oppose use of this technology. In our view, when objectively considered, the issue of water use should really be a non-issue, because even in the arid West some allocation of water is made for economic growth and industrial use. All states have historically managed their own water, and we see little reason why they should not continue to do so. Indeed, this has been the case with respect to Energy Transportation Systems, Inc. (ETSI). ETSI has made arrangements with the State of Wyoming for the necessary water to operate its coal pipeline. We see little reason for the federal government to take a position one way or another regarding the propriety of water use in slurry pipelines versus using the same water for coal gasification, oil shale production or electric generation.

In fact, when one examines the water use requirements of synthetic fuels or electric generation, coal slurry pipelines fall at or near the bottom of the list. Indeed, coal slurry pipelines require one-seventh to one-ninth the water needed to generate electricity from steam electric plants.

Depending on the technology used, coal slurry lines use roughly half the water needed by present-day coal gasification facilities. This is especially significant in water short areas where many of the projected power plants will produce electricity for export to consumers in areas where water supplies are more plentiful.

Therefore, replacement of proposed electric generation plants located at the coal mine (mine-mouth generation) with coal slurry lines or other means of transporting the coal would reduce local water requirements. It is also important to note that coal slurry lines can use water which is too expensive for farmers or municipal use, or too contaminated for other purposes. For example, coal slurry lines could use the highly saline water in the Big Sandy River of Wyoming.

A recent (January 24, 1980) study of water supply in the West by the U. S. General Accounting Office indicates that coal slurry pipelines hold the potential for little impact on water consumers in Western states. Indeed, the GAO study noted that:

> "One new technology, transportation of coal through slurry pipelines, offers the promise of actually decreasing water consumption in water-short areas. Since coal slurry lines require only one-seventh the amount of water required by electric gener-

> ation plants, local water consumption would be reduced substantially if coal slurry lines or alternate modes of transportation replaced local electricity generation. Since coal slurry lines can use water that is too contaminated or too expensive for other purposes, the technology should not have much impact on other water consumers."
> (Emphasis added)

In addition to the benefits of coal slurry pipelines as conservors of Western water, there is a novel proposal under study which could potentially deliver up to 80,000 acre feet annually of treated waste-water as a slurry medium into the coal rich Powder River Basin of Wyoming. The Grand Rapids, Michigan, engineering firm of Williams and Works has proposed transporting primary treated waste-water to the coal fields near Lusk, Wyoming, for use in slurry pipelines, coal gasification plants or mine-mouth electric generating plants.

By way of background, the City of Omaha discharges 80 million gallons of waste-water with only primary treatment into the Missouri River daily. Present plans call for Omaha, aided by an EPA construction grant, to build a $120 million secondary treatment plant by 1990. Once in operation, the plant would reduce the current daily discharge of 300,000 pounds of biochemical oxygen demand and suspended solids into the river to 20,000 pounds. The annual operating cost will be $5 million more than the primary plant already costs.

Shipment of the waste-water to Wyoming, Williams and Works points out, would permit reallocation of Omaha's EPA grant to other needed pollution abatement projects, remove the remaining discharge of 20,000 pounds of pollutants, eliminate the cost of operating the proposed secondary treatment plant, and provide water needed for coal development.

The Michigan engineering firm estimates the waste-water pipeline could be completed by late 1983 -- six years ahead of the proposed secondary treatment plant.

In a proposal submitted to the Department of Energy, preliminary calculations indicate the Omaha water could be provided to industrial users at a cost of $500 - $1,000 per acre foot. The only technical question needing new study is the level of treatment possible while the waste-water is in transit between Omaha and Wyoming. Another possible problem would be approval by the Corps of Engineers of diversion of water from the Missouri, but the proposal notes that the Corps in the early 1970's commissioned a study of the feasibility of diverting both waste-water and stormwater from Omaha to another river basin for irrigation.

In addition, independent studies are underway examining the economics and technological feasibility of using liquid carbon dioxide, oil and methanol as a slurry medium for coal.

Researchers at Alfred University in New York State are experimenting with a system which wile using water as the slurry medium would allow the coal-slurry mixture to be composed of perhaps as much as 70% coal and 30% water, a major advance over the 50/50 coal-water mixtures used today.

It is our view that the issue of water, especially in the West, should be left as a decision to the states alone. They are best equipped to sample the feelings of their citizens and know whether allocation to any technology is prudent and feasible.

Mr. Chairman, we as an industry have agreed that any federal legislation should not restrict, expand or affect existing state water rights. We agree wholeheartedly that existing law governing the appropriation, use or diversion of water or any federal, state or private right to water or any interstate compacts regarding water should be left just as they are. And, in no instance are we asking for the use of eminent domain to acquire the use of or right to water.

IX. Environmental Aspects of Coal Slurry Pipelines

The impact on the environment of the construction and operation of slurry pipelines is a subject that has long been considered by the slurry transport industry, and one that has occasioned numerous studies funded by various federal and state agencies. We believe it is fair to say that the concensus is that coal slurry pipelines have environmental advantages over other methods for transporting coal. Unlike rail shipment, for example, where surface movement poses obvious safety hazards such as collisions and derailments, pipelines are buried and do not interfere with other surface activity. There are no dust or noise problems. The environment itself does not impinge on the reliability and security of pipeline transport as it does on rail, truck or barge shipment: blizzards and sub-zero weather are surface hazards that can halt surface transport, but leave pipelines unaffected.

A question of concern to this Committee is whether shipping coal in a coal-water slurry might lead to an environmental impact at the receiving end of a pipeline. As I understand it, the question is whether the water can be safely disposed of.

In short, the answer is yes.

This question has been explored over the years, by the slurry transport industry and by academic and other researchers and scientists. It has been regularly reported on at the annual International Technical Conferences on Slurry Transportation conducted by the Slurry Transport Association, and in studies commissioned by federal and state agencies.

R. R. Faddick, slurry pipelining specialist, Colorado School of Mines, in his study of The Environmental and Pollution Aspects of Coal Slurry Pipelines prepared for the Industrial Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency and published as EPA-600/2-79-067, March 1979, covers all environmental aspects, including water quality and on that subject reports:

> "In conclusion, it appears that most of the physical aspects of coal water separation have no adverse environmental impacts. However, chemicals involved in dewatering processes do have possible adverse environmental impacts. Careful selection of chemicals must be made to minimize those impacts."

Dr. Faddick notes that selection is available and various devices are commercially available, at reasonable cost, to permit meeting Environmental Protection Agency standards.

In concluding his report, Dr. Faddick says:

> "In summary, the operation and maintenance of a coal slurry pipeline are more complex than, but similar to, the operation of an oil or gas pipeline. Although there are some potential environmental impacts associated with the operation of a coal slurry pipeline, they would be less than the impacts produced by oil and gas pipelines over the last 50 years."

Water quality at the receiving end of a coal pipeline was also a subject considered at the two most recent International Technical Conferences on Slurry Transportation, sponsored by the Slurry Transport Association. Dr. James W. Moore, an associate professor of civil engineering at the University of Arkansas who is completing a report on slurry wastewater quality funded in part by a grant from the Office of Water Research and Technology of the Department of Interior, has addressed this concern at these conferences.

At the 1979 International Technical Conference, Dr. Moore's presentation centered on water quality implications for slurry pipeline transport of coal from Western mines. He concluded his paper by saying:

> In summary, water quality problems involving the parameters investigated in the research program are not severe and should not impede development of a slurry pipeline system. Remedial measures are available for upgrading the slurry wastewater quality for reuse as process water or to allow discharge to surface watercourses. Reasonable precautions will allow use of the slurry wastewater as circulating water system makeup water, thus reducing the volume of water which must be treated, should treatment be required."

At the 1980 International Technical Conference, Dr. Moore covered slurry pipeline transport of coal from Eastern mines, and said:

> "In most cases, upgrading of the quality of the slurry wastewaters to an acceptable level for either reuse or for discharge to a surface watercourse will be expensive in absolute dollars. Whether the expense will be significant in terms of overall project economics is difficult to generalize with a reasonable degree of accuracy. For marginal projects, the expense could alter the benefit-cost ratio sufficiently to negate a potential project. However, the economic advantages of long distance transport of large volumes of coal by slurry pipeline appear to be such that the wastewater quality restoration costs would not unduly adversely influence these projects. Environmental impact statements and permit acquisition efforts will undoubtedly address the final disposal of the wastewater produced by the slurry pipelining operation."

In other words, water quality standards can be met, and must be met by those proposing to construct coal slurry pipelines. They will, of course, be met by those building these pipelines.

X. Energy and Economic Benefits of Coal Slurry Pipelines

Since much of the debate over coal slurry pipelines has tended to center on access to water in Western states, it seems at times as though all coal pipelines would be built to move Western coal. Obviously, this is not the case and our Eastern states have a very real stake in the future for this transportation mode.

This makes it appropriate to use a proposed Eastern project, that of Continental Resources Company, as an example of the energy and economic benefits that can accrue from coal pipelines.

As noted earlier, Continental Resources proposes to build a 1,500 mile coal slurry line from mines in souther Illinois and Indiana and western Kentucky on one leg, and from eastern Kentucky, West Virginia, southern Ohio, northern Tennessee and western Virginia on another to utility and other markets in Georgia and Florida, with outlets for export from Gulf and Atlantic Coast ports. In February of this year, an economic and energy analysis of this pipeline project was completed by National Economic Research Associates (NERA) of Washington, D. C. The study reveals the major benefits which would accrue in several areas of national energy and economic policy. These include:

- -- increased domestic coal use,
- -- decreased use of petroleum products,
- -- reduced oil import requirements,
- -- reduced institutional constraints on the ability of utilities and industry to convert from oil and gas use to coal,
- -- dollar savings to consumers of electricity,
- -- improvement in the balance of payments, and
- -- increased employment and income in eastern coal producing states.

I would like to summarize each of these benefits quickly and indicate that projections were made for the years 1990, 1995 and 2000. The years were arbitrarily selected to find a measure of the benefits through the decade of the 1990's on the assumption that the pipeline would begin operation in 1986.

The Utility Coal Market

On the basis of different assumptions of the effect of government regulations on utility coal use, NERA projected three cases which established the upper and lower bounds and the most probable level of utility coal use in the three years 1990, 1995 and 2000. These projections are as follows:

	1990	1995	2000
		(tons of coal)	
	(1)	(2)	(3)
Case I (maximum)	101,244,000	124,159,000	153,430,000
Case II (probable)	58,205,000	71,367,000	88,222,000
Case III (minimum)	55,632,000	68,050,000	83,395,000

They concluded that even the minimum projected utility demand would be sufficient to justify the pipeline transportation of the quantities needed to satisfy a large percentage, if not all, of that demand.

Increased Domestic Coal Use by Industry and Utilities

The combination of government pressure to convert energy use from gas and oil to coal at industrial plants and the increased economic attractiveness of delivered coal prices due to pipeline transportation would create a market of some 6.9 million tons per year for existing industrial plants in Georgia and Florida. Assuming in addition the technical feasibility of burning a coal-oil mixture in oil-fired utility plants, the lower delivered cost of coal would stimulate such conversion. NERA estimates the market for this use to be 10.4 million tons per year. Thus, the total potential increase in domestic coal use resulting from pipeline transport of coal to Georgia and Florida would be 17.3 million tons a year.

Decreased Use of Petroleum Products

The pipeline transport of coal, which would be powered by electricity, would result in the elimination of the diesel fuel that would otherwise be consumed by locomotives and tugs in the rail and barge transport of coal to Georgia and Florida utility and industrial plants. NERA estimates the potential savings of diesel fuel to be as follows:

	Diesel Oil Saved (barrels per year)
1990	3,337,000
1995	3,979,000
2000	4,845,000

In addition, the reduction in the industrial use of fuel oil would be an estimated 4,737,000 barrels of No. 2 oil and 14,542,000 barrels of residual oil per year. The use of a coal-oil mixture as fuel by utilities would result in annual savings of 40 million barrels of residual oil. Therefore, the total savings of petroleum and petroleum products would then be 62.6 million barrels in 1990, 63.3 barrels in 1995, and 64.1 million barrels in 2000. (See Table I-A).

Reduced Oil Import Requirements

The savings in oil use discussed above would yield a barrel-for-barrel reduction in crude oil and petroleum product imports.

Reduced Institutional Constraints

To the extent coal is transported by pipeline the question of the ability of the railroads to handle additional traffic is by-passed, and the improved reliability of supply resulting from the immunity of a pipeline to interruptions due to weather, car shortages and roadbed conditions enhances the ability of consumers to convert to coal use. The savings in transportation costs through the use of pipelining also enhances this ability by increasing the difference between the delivered cost of coal and oil, thus increasing the offset to the higher capital and operating costs of a coal-fired plant.

Dollar Savings to Consumers

Based on alternative assumptions of future inflation rates and the consequent savings in transportation costs, NERA estimates that the total savings to utility customers through the utilities' use of pipelined coal in Georgia and Florida would be $118.7 million in 1990, $380.7-$677.9 million in 1995, and $828.7-$1,779.3 million in 2000. Of this, some 45 percent would go directly to residential customers, who would also benefit in their purchase of goods and services to the extent commercial and industrial customers passed along their savings. If the coal used in coal-oil mixtures were also transported by pipeline, the result would be savings of $21.2 million in 1990, $56.4-$100.4 million in 1995, and $100.5-$215.7 million in 2000. In terms of national economic policy goals, these results would be counterinflationary; and the higher the inflation rate, the larger the savings.

Balance of Payments Improvement

Assuming (conservatively) a price of $30 a barrel for imports[1] of crude oil and products, the reduction in oil imports would mean savings in the nation's oil import bill of $678 million in 1990, $699 million in 1995, and $723 million in 2000. Adding the import savings that would result from the use of coal-oil mixtures would yield another $1.2 billion per year.

Increased Employment and Income

If all of the increased coal use resulting from pipeline transportation to Georgia and Florida were to be produced from mines in Kentucky, West Virginia, Virginia, Indiana and Illinois in proportion to their share of total production in 1976, it would mean the employment of 5,200 additional mine workers in those five states. At an assumed mine price of $25 per ton, the additional production would yield additional revenues of $432.0 million per year to the coal industry in the state or states concerned. Severance taxes on the additional coal production would yield additional revenues beyond the increased income and sales tax revenues to the states. A special benefit would be the increased ability of small mines to supply the utility market, through the ability of pipeline operations to deal with such small suppliers.[2]

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[1] Spot market prices have exceeded $40 a barrel in recent months.

[2] Since the NERA study, Continental Resources has proposed drawing also on mines in southern Ohio and has increased its projections of annual throughput from 15-45,000,000 tons to 22-55,000,000 tons.

Cumulative Savings

It should be borne in mind that all the foregoing benefits are annual. An illustration of their cumulative effect is given in Table I-B, which shows the cumulative totals of all savings for the decade of the 1990s. These are large figures, especially those for the dollar savings to consumers due to the rapid rise in the annual level of those savings. For the entire life of a pipeline or pipelines used to transport coal to Georgia and Florida the savings become very large indeed.

TABLE I-A
QUANTIFICATION OF THE RESULTS OF THE ANALYSIS FOR SELECTED YEARS

1990, 1995 and 2000

	1990 (1)	1995 (2)	2000 (3)
	Million Barrels		
Savings in Distillate Oil Use			
Diesel oil in transportation	3.337	3.979	4.845
No. 2 oil in industry	4.737	4.737	4.737
	8.074	8.716	9.582
Savings in Residual Oil Use			
Industrial	14.542	14.542	14.542
Utility	40.0	40.0	40.0
Total Oil Savings	62.616	63.258	64.124
Savings in Oil Imports			
From transportation and industry savings	22.6	23.3	24.1
From utility savings	40.0	40.0	40.0
	62.6	63.3	64.1
	Million Dollars		
Savings to Utility Customers			
In transportation alone	$ 118.7	$ 380.7-- 677.9	$ 828.7-- 1,779.3
In transportation for use in coal-oil mixture	21.2	56.4-- 100.4	100.5-- 215.7
	$ 139.9	$ 437.1-- 778.3	$ 929.2-- 1,995.0
Savings on Balance of Payments			
From transportation and industry savings	$ 678	$ 699	$ 723
From use of coal-oil mixture	1,200	1,200	1,200
	$1,878	$1,899	$1,923
Additional Employment		5,200	
Additional Annual Coal Industry Revenues		$432,000,000	

TABLE I-B
QUANTIFICATION OF THE RESULTS OF THE ANALYSIS CUMULATED FOR THE DECADE

1990-2000

	Million Barrels
Savings in Distillate Oil Use	
Diesel oil in transportation	40.4
No. 2 oil in industry	47.4
	87.8
Savings in Residual Oil	
Industrial	145.4
Utility	400.0
	545.4
Total Oil Savings	633.2
Savings in Oil Imports	
From transportation and industrial savings	303.2
From utility savings	628.2
	931.4
	Million Dollars
Savings to Utility Customers	
In transportation alone	$4,272.0-$ 8,134.5
In transportation for use in coal-oil mixture	586.3- 1,094.2
	$4,858.3-$ 9,228.7
Savings in Balance of Payments	
From transportation and industrial use	$ 6,997.5
From use of coal-oil mixture	12,000
	$18,997.5

XI. Impact on Railroads

It has been contended that construction of coal slurry pipelines would have a "crippling" impact on America's railroads, since it would take from them some significant portion of coal traffic. At present, railroads haul approximately two-thirds of the coal shipped in the United States, with all but a very small percentage of the balance handled by trucks and barges.

The Office of Technology Assessment, in its March 1978 Report to the Congress, A Technology Assessment of Coal Slurry Pipelines, sought among other efforts to gauge the effect on railroads of construction of some number of coal slurry pipelines. It must be emphasized that the OTA study dealt in a number of hypotheses -- and the report itself stresses this -- but there has been a marked tendency to cite the OTA study as being definitive, particularly by those in the railroad industry who would impute to it a standing it simply does not have.

Within the hypothetical framework established in the OTA study, it could be contended that coal slurry pipelines could have a possible adverse impact on railroad profitability and employment levels. But even if all of the study's hypotheses are accepted and its "worst-case" conclusions accepted, it cannot be said, as some would imply, that America's railroads will be so affected as to be endangered.

Additionally, much of what was forecast as possibility was predicated on what, in 1978, appeared to be a reasonable assumption: that Interstate Commerce Commission regulation of railroad rates would continue at the level and within the context of then-existant regulatory policies and practices of the ICC. We know now, of course, that the Congress is moving toward deregulation of the railroads. Meanwhile, ICC policies and practices have already changed -- for example, railroads are now free to enter into long-term contracts with shippers, meeting one of their long-standing complaints that such contracts to be used by coal pipelines would give them an unfair competitive advantage.

But rather than dwelling on particulars of the OTA report, let me suggest consideration of a current comparison of prospects for railroads faced by potential competition from coal pipelines.

In 1979, U.S. coal shipments totaled approximately 750 million tons, with railroads accounting for approximately 485 million tons.

It is now projected that coal shipments will approximate 1.4 billion tons in 1990.

Assuming that all presently planned and existing coal slurry pipelines are operating at their maximum projected capacities in 1990, they would be handling approximately 170 million tons.

Further assume that coal hauling by trucks and barges, which in 1979 amounted to approximately 260 million tons, increases by 50 percent by 1990, to 390 million tons.

The coal shipment situation in 1990 would then be:

Total coal shipped	1,400 million tons
by pipeline (170 million) by trucks/barges (390 million)	560 million tons
Railroad potential	840 million tons

Thus, assuming all of this, railroad coal hauling would increase by 355 million tons. The increase for railroads would be more than twice the total handled by coal pipelines.

In 1990, coal pipelines would account for -- at most -- 12 percent of all coal shipped in the United States. Railroads would handle at least 60 percent.

Whether this will, in fact, be the situation in 1990 is, of course, open to debate -- just as the projections made in 1978 in the OTA report are debatable.

What is not in question is whether coal slurry pipelines can be reasonably expected to displace railroads as America's principal transportation system for coal in the foreseeable future -- or, indeed, at any point.

As noted earlier, no coal user will be required to take supplies from a slurry pipeline, and no government subsidies for coal pipelines are being sought. Railroads -- and barges and trucks -- will be free to compete with coal pipelines; indeed, deregulation of the railroads could be viewed as providing them with greater opportunity for competing. At present, the railroad industry is seeking to head off competition while at the same time seeking relief from regulation. Ironically, part of the argument made for deregulation is that this would make the railroads more competitive.

While railroad management has been pressing for continuation of what is a patently unfair as well as anti-competitive situation, i.e., the ability of railroads to block construction of coal pipelines by refusing to negotiate for crossing of rail rights-of-way, the unions representing railroad workers have joined the battle and raised the spectre of massive unemployment among their members..

The implication is that large numbers of present employees of railroads would be discharged or furloughed if coal pipelines are constructed and that this would have a significant impact on total employment across the nation.

Even the OTA report disputes this claim. Basing its estimates on operation of five hypothetical pipelines, OTA projected layoffs or discharges of 12,022 rail workers in 1985.

But the OTA report put this into context: if none of the five pipelines were operating in 1985, rail employment would be projected at 362,520. At worst then, three percent of the workers that might have been employed in 1985 would not be employed. What the OTA report did not show was then-present employment totals for that portion of railroad employment OTA concerned itself with. I am unable to provide that figure, but I would note that, according to the Association of American Railroads, railroad employment in the United States in 1979 totaled 502,975 (preliminary). Obviously, OTA was dealing in 1978 with some portion of a larger employment total, since it doesn't seem reasonable to assume that total railroad employment has grown so sharply over the past few years. This missing element makes it difficult to establish whether OTA was projecting actual displacement of existing workers or an offset against some anticipated future increased employment.

What OTA did say, and which I feel has been ignored by rail labor, is "The effect upon regional economics would be quite small. In fact, in line with the preceding discussion, pipeline labor compensation increases should offset the effect of the railroad compensation decreases up through the year 2000."

Translated, OTA was reporting that even under its hypotheses, there would be relatively little real impact on rail employment and that projected employment for pipeline construction and operation would actually add to the nation's overall employment level.

I readily acknowledge that the loss of even one job can be viewed as a disaster, certainly for the individual involved. But I must contend that what is involved here is not a loss of jobs; rather it is a potential loss of potential jobs. As I read the OTA report, some very small percentage of all workers expected to be employed in the future won't be hired.

As noted earlier, even with full-capacity operation of all presently projected coal pipelines by 1990, making what I consider reasonable additional assumptions, coal traffic on America's railroads will increase in the future. Unless the railroads themselves reduce their manpower needs in relation to units of coal hauled, their overall employment also will increase. Admitted, employment might not increases as rapidly, but this is a far cry from what rail labor would have one believe -- that there is a prospect of loss of present jobs.

onclusion

Mr. Chairman, in our testimony today, we have attempted o outline the benefits to this nation, both domestic and nternational, of permitting the construction of coal slurry ipelines.

A coal pipeline can be completed more quickly than any f the other new energy projects which are under discussion. ll of the projects of which I have any knowledge are being eveloped as private enterprise ventures, using private money nd risking private capital in the equity for the systems. e ask no Government subsidy or price guarantees. We don't sk for any special tax relief. We will pay our way as we go, nd in all respects act as useful and responsible corporate citizens.

We are asking the House to give us a bill which permits the application of Federal eminent domain to the right-of-way problem, which does not require us to incur the delays of multiple Government approvals, nor strangle us in procedural red tape. Given the opportunity, the coal pipeline industry can make a substantial contribution to solving this nation's energy problem. We ask that you give us that opportunity.

Thank you.

Mr. **Skedgell.** I was not able to be here for the early part of the morning hearings, however my staff was and they indicate the following issues did come up.

First, there was a question apparently on removing from our substitute bill ICC signoff on water disposal. There was never in the original legislation such an exact provision. However, the substitute bill, as the Public Works—which incidentally I should say is really 95 percent composed of the Public Works Committee version with two exceptions, the one being the scope of the eminent domain authority and the second being three lines of water language which I will address in a moment. Other than that the bill is virtually verbatim to that reported by the Public Works Committee.

There have been a number of legal drafting changes which were suggested by Mr. Johnson of Mr. Udall's staff. There was no change in any of the substantive provisions. But with respect to the EPA's involvement, in the permitting process, at section 1034(b) of the substitute, which is page 16, one of the provisions is that the Secretaries of Energy, Transportation and Interior, and the Administrator of EPA shall, and other Federal agencies, departments, or instrumentalities may participate in each hearing under this paragraph and are entitled to submit proposed findings, conclusions, exceptions, et cetera.

So there certainly is very strong intent of our substitute bill to have the EPA involved in a review from A to Z of any difficulties which they feel we might encounter in constructing and designing coal slurry pipelines.

If this committee wishes, there may be one or two other places in the bill—I am not an attorney but I think up front in section 102 indicates where we can certainly insert EPA and I would be happy to discuss that with your staff in the next week or two. We certainly have no objection to having them involved in the certificate process.

Mr. **Florio.** My concern, as I enunciated to some of the Federal officials here this morning, is that consulting with them may be difficult because in many instances they are not sure of their legal authority, they are not sure of the jurisdiction they have, and I think the whole thrust of the testimony was that we are talking about a new field in which they are not prepared to give us many concrete answers with regard to waste disposal, pipeline breaks, and things of that sort.

I am just concerned as to how the pipeline companies would make those economic decisions based upon such a lack of certainty. Would they be inclined to go forward and then have to pay the bill later on? That is the concern I have.

Mr. **Skedgell.** Well, as you will hear from Dr. Moore, Mr. Chairman, we, the industry, believe that it can certainly meet all present EPA standards for waste water disposal. As a practical matter, I think you must bear in mind that with perhaps one exception, most of the pipelines that are on the drawing boards today, perhaps I should say with two exceptions, a short line and a long line, will not be conducted, will not be in operation until the late 1980's, almost 10 years from now, and what they need is the legislation that will be pending before the House in order for them to go ahead and make their plans and move ahead certainly within that time frame.

I would think, again as you will hear from Dr. Moore, that any potential problems associated with waste water disposal will certainly be addressed by the EPA and pipeline sponsors will be able to construct the proper kind of facility.

What we are really talking about as a practical matter in an operation sense is the addition perhaps of an additional water cleaning facility at the end of the line which would not in any way affect what you do in an operational sense for the say, first 1,200 or first 1,199 miles of the pipeline.

Mr. FLORIO. There is a question with regard to the business procedure of a pipeline. Before making a decision to go into eminent domain proceedings, I presume that they would have to have some at least tentative commitment with regard to contracts?

Mr. SKEDGELL. That is correct.

Mr. FLORIO. To get a tentative commitment, and then have a contractual obligation to go forward, seems to me to lock in the parties to whatever it is that EPA or the appropriate governmental agency later requires, and that is how you cost out things of that sort, I have a difficult time understanding.

Mr. SKEDGELL. Well, of course, there are many ways, Mr. Chairman, of putting together a project of this nature, including the project financing. I would imagine in most cases what pipeline sponsors would seek initially would be a letter of intent to participate in the project. When I say participate, I don't mean in an equity sense, participate in terms of being customers of that pipeline project, and that is really where they would begin.

Now, no company, no electric utility certainly, would sign such a letter of intent, let alone a final contract until it had satisfied itself and I would imagine that State commission would think of every important point as to the economics of such a proposal, what they are getting into.

What I think that many people overlook is the nature of the State public commission regulation. No electric company in its right mind is going to commit itself to a contract for the delivery of coal where, indeed or any other commodity it needs to conduct its business if there is any chance whatsoever that a State public service commission upon reviewing that contract, is not going to permit a legitimate business expense which should be passed on to the electric utility ratepayers.

No. 2, this bill does provide the substitute, as did the Public Works Committee version, a mechanism for the ICC to approve or deny the cost of the project and, in other words, the ICC can get in there and say we are putting a cap on the cost of that project, and I can give you a site on it.

This is very strong protection at the commission level and very strong protection at the State level, and it varies from State to State, but in my prior experience in the natural gas industry there are many State public utility commissions where the rules and regulations are such that no utility would be allowed to enter into a 20- or 30-year long-term contract without commission approval on the front end, and in those States where that is not the case, as I said earlier, CEO of an electric company would be taking a great chance indeed to enter into an ironclad contract and then, for the transportation and control, only to find that the State commission would disallow those transportation costs or a portion of those costs to the ratepayer.

I think you have protection at the Federal and State level.

Mr. FLORIO. You may know of commissions like that. The State regulatory commissions that I am familiar with on a regular basis are constantly allocating cost overruns and are not inclined to impose caps on projects, and if they did, retreat from them at a later point in time. I am not sure how one does that.

One last question on this one point. Is it your feeling that good business practice or the procedure of a pipeline would require that before eminent domain proceedings were commenced, that there would be signed binding contracts with the customers of the pipeline?

Mr. SKEDGELL. I would say, Mr. Chairman, that in the opinion, before a company would initiate what will probably be a 2½-year timeframe at ICC for approval of this between environmental impact statement and commission consideration of all merits and demerits of what is proposed, it would at a minimum probably want to have letters of intent before it would commit itself to that substantial cost.

However, at any time even if the commission said all right, we approve your project and we will issue you a certificate of public convenience and necessity to you, that doesn't bind on the company, the company can always refuse the certificate if in business practice it didn't have enough customers to justify building the line or what have you.

What I am trying to get at, there are many places along the line where your concern of when do we know the total costs, when do we know with a fair amount of certainty, where do we know those costs, and very certainly if the electric utility and export customers of these coal lines are not absolutely satisfied that this is a deal for them at a real bargain, they will not go beyond say a letter of intent. They simply will not sign the binding contract, long term binding contract, and there will be no pipeline.

Let me move on, if I may. This comment was made and I don't know who made it, that broader eminent domain than is provided in the current Public Works version of the bill, which is in essence eminent domain would permit lines to cross railroad property only, had not been considered or addressed.

Well, indeed every bill that has been discussed in this Congress for the last 20 years that I am aware of provided for full eminent domain such as that provided by the Natural Gas Act and Federal Power Act. Indeed, just in this Congress the Interior Committee held many days of hearings on just such a bill, and reported just such a bill, so this is not a last minute attempt on our part to broaden what committees had not looked at.

As it turned out, we were not successful in retaining full eminent domain in the Public Works Committee print. However, we believed, as do the sponsors of the legislation, Mr. Johnson, Mr. Udall, Mr. Roe, Mr. Hammerschmidt, and Mr. Eckhardt, that the bill as the Public Works Committee is currently drafting it, is simply unworkable for us. It is so fraught with difficulty you really couldn't run a 20-foot garden hose through a water fountain under it and it simply will not permit construction of coal pipelines, so that is the reason that the sponsors of the legislation moved back to the original version as in essence with the exemption of substituting the ICC for the jurisdictional agency, in essence had adopted in the substitute the Interior Committee recommendations that full eminent domain be granted.

In the Interior version it was vested in the Department of the Interior.

So it is certainly no last minute occurrence that this happens and it is in fact what we need to get a pipeline industry underway.

The other major change I think from the Public Works version to the substitute, which I think needs to be addressed, certainly from our standpoint, is this question of other State signoff in the water provisions.

The Interior Committee and I must say—both sides of the aisle labored very diligently I think and over sometime to arrive at what they consider suitable water language. And there are probably five or six pages in the bill to protect individual States rights in their ability to retain control of their water and we support that. The bill, as I am sure you know, doesn't provide any authority for eminent domain to be used to acquire water rights.

Three or four lines in question here that have been removed from the substitute, was an amendment offered in subcommittee, in the Transportation Subcommittee of Public Works, which really blazes very wide new trails into western water law, and that simply is that this amendment which would require that other States have a signoff in permits, very clearly established an interestate compact on underground water by Federal fiat.

This is opposed by a number of members, including the gentlemen from Wyoming, Utah, and Idaho, and the feeling on the Senate side is very, very strong that interstate compacts have always been entered into voluntarily by the States.

We are obviously strongly opposed to doing it by Federal fiat with respect to the interest of the pipeline industry because it is going to be longer in terms of time to get the projects moving and off the ground if we have to wait for three or four other States to sign off on the use of underground water, this industry will never get going.

There is one other point to make, very competent water counsel, indeed counsel on the Interior Committee of the House, has indicated that there is no one instance in all of U.S. case law which would indicate that an adjoining State had any legal interest whatsoever in another State's underground water. There is no legal basis for it. And I think that if indeed one or two States feel they need some sort of protection, I think that issue should be addressed separately as a water issue in the proper committees but not tacked onto legislation to get a new industry started where there is very clearly disagreement among their peers, and this, of course is a western issue in the western States as to the need for that. We could argue that issue probably for 15 years.

Mr. FLORIO. You choose to categorize it a fiat and compacts. I think the argument can be made just as vigorously, we are talking about blazing new trails in terms of Federal eminent domain powers for coal slurry pipelines, and to the degree that it is a water intensive new business enterprise, there is a legitimate need for real considerations about water policy and whether the case law be there, the geology and the awareness of the fact that the impact in one State on an aquifer that goes into another State has clearly been scientifically established. Therefore, it is not an unreasonable position to put forth that the actions of one State pursuant to this statute that have and could have detrimental impact upon water supplies in another State. Because of aquifers crossing State boundaries the other State should have the option of playing a role. I am not sure I agree——

Mr. SKEDGELL. Well, let me say though, make the point that I am unaware in all of the other legislation that has been considered by this Congress, namely, I guess the now ill fated Energy Mobilization Board and particularly the synthetic fuels legislation, which recently passed, there is most certainly water language in both of those bills to protect and individual State's right to water.

I find it very curious that all of a sudden we must have this protection for other States with respect to coal pipelines only and not coal gasification plants which use two times the water we would use, or electric generating facilities, which use seven times the water.

Where was the concern on this issue when the Congress looked at it in a much more water-intensive industry and has passed indeed the water language embodied in the statute and in the Public Works and Interior bill? I just find it curious this issue comes up with respect to this technology.

Mr. FLORIO. Perhaps you may think of yourself as being someone who has benefited by enlightenment that has come to the Congress now that wasn't there in the other pieces of legislation.

Mr. SKEDGELL. I think they would certainly support, if you will, adjacent State sign-off with respect to water so long as it was applied across the board to all technologies without any discrimination. I think that if that is the will of Congress, we would live with it. We have a problem when it seems to be applied only to us.

Right now, if I may, let me ask Dr. Moore to read his very short statement. I think it is a page and a half.

STATEMENT OF JAMES W. MOORE, PH. D.

Dr. MOORE. I am James Moore, professor of civil engineering at the University of Arkansas in Fayetteville, Ark. I am currently conducting a research program designed to determine the water quality changes which will result from the slurry pipelining of eastern coal and the treatment measures applicable for upgrading the quality of the slurry wastewater to the level required for either reuse or discharge to surface watercourses.

Although the research program, funded by the Office of Water Research and Technology of the Department of Interior, will not be completed until December 1980, most of the data necessary for completion of the program has been collected. It is that data that I will discuss today.

The water quality changes which will occur can be divided into two categories. These are changes in the inorganic and organic characteristics of the water. Using data resulting from investigations conducted on washed Illinois coal, for example, we found that the dissolved organic concentrations were low, on the order of those encountered in secondary treated municipal wastewater. These organics concentrates are higher in unwashed western coal, the key being the washing of the coal.

Additionally, we conducted gas chromatographic studies to determine if the dissolved organics were aromatic hydrocarbons. In general, aromatic hydrocarbons have a significantly longer half-life in the environment than do aliphatic hydrocarbons, because they are more difficult to degrade biologically. In the studies we have conducted on both eastern and western coals, we have not detected the presence of any aromatic hydrocarbons in the slurry wastewater.

In studies conducted using municipal wastewater for forming the slurry, our results indicate that there is significant uptake of the dissolved organics by the coal. Thus, the quality of the municipal wastewater is improved with respect to the dissolved organic characteristics.

Changes in the inorganic characteristics of the water do occur as a result of the slurry pipelining process. Increases in the concentrations of hardness, sulfate, chloride, and several other parameters have been observed in the eastern coals investigated to date. However, these concentrations can be decreased to the level required for discharge to surface watercourses, if required.

Concerning treatment of the slurry wastewater—the water remaining following separation of the coal from the slurry mixture—adequate treatment measures are available for upgrading the wastewater to levels required for either re-use or discharge to surface watercourses. Treatment costs will be low in terms of the additional cost per ton of coal delivered. These low treatment costs, even if extensive treatment is required, occur because of the relatively small quantity of water required to deliver the coal.

That concludes my formal statement.

Mr. FLORIO. Thank you very much.

I went to see, I guess it is about 2 years ago, the Black Mesa facility. My recollection is that in the slides that were shown there was reference made to lubricants that had to be added to the water, to ensure that steady flow. Do you recall—I don't recall—do you know what the nature of the type of lubricants——

Dr. MOORE. Not in the Black Mesa system. There are efforts to try to increase the percentage of solids that are in the slurry pipeline with polymers or some other materials that will allow us to reduce the amount of water required. But I am not aware of lubricants being used.

Mr. FLORIO. Elements that are to facilitate steady flow and to reduce friction in the pipes.

Dr. MOORE. I am not aware of those.

Mr. FLORIO. Anticorrosives, does that mean anything?

Dr. MOORE. Yes sir. In some cases anticorrosives may be used in all kinds of pipelining.

Mr. FLORIO. What types of material?

Dr. MOORE. There are two common types that are used. One is phosphate based anticorrosive and the other is chromate based anticorrosive. My projection would be that probably the phosphate based anticorrosive would be used if it were required.

Mr. **Florio**. My understanding is that some research has been done with regard to coal washing, that is washing of coal prior to its being used in the pipeline, and I would like your thoughts in terms of the disposal of the residue, that is, the water that is used to wash before the pipeline, and then I would like your thoughts on the results, assuming there is no washing that takes place, which is another technology.

What is the residue that is at the end of the pipeline, particularly in light of some of the testimony this morning that there are chlorinated hydrocarbons which can be hazardous to people's health in the residues?

Dr. **Moore**. We have washed coal for quite a long time, eastern coal. By and large we don't wash western coal because of the limited water resources available. My opinion is that basically the slurry pipeline operation itself acts as a washing of coal rather than anything else.

In other words, when we wash the coal, as it comes from the mine, we are washing lumped coal or usually large coal, so the residue remaining as a result of crushing that coal is what is washed from the coal itself.

Prior to the time the coal is injected into the slurry pipeline we have further ground or reduced the size of it. So the constituents that we get in the slurry pipeline basically are the same as those that resulted in the coal washing operation simply because we have reduced the size of the coal again.

Mr. **Florio**. You seem to be suggesting that you get better results from not prewashing but rather having it washed through the process of being transported because the particles are smaller?

Dr. **Moore**. No, what I was saying is that we essentially do the same thing by washing coal as we do by slurry pipelining it, except that in between the two, we have ground the coal to a finer size to allow suspensions in the pipeline itself.

I think the two results are compatible. If you don't prewash the coal or wash it before it goes into the slurry pipeline, then we will have higher concentrations of contaminants in the waste water which results from the slurry pipeline process, simply because we haven't removed those on the front end as we expect to in eastern coal.

Mr. **Florio**. I think the conclusion at some point is whether it is prewashing or at the end of the pipe, there is a disposal problem that is associated with contaminants that may be in the water. How do you view this in terms of what it is that has to be prepared, what type of technology is being contemplated to dispose of the materials that have to be dispoeed?

Dr. **Moore**. Right, the technology that we would use for restoring the water quality is the same as we use for other industrial or municipal waste. In the case of western coal where we have more dissolved organics, we would use biological treatment for removing BOD and COD. That technology is the same as used in municipal waste water treatment.

Mr. **Florio**. Does your industry regard yourself as coming under the perview of the Resources Conservation Recovery Act?

Dr. **Moore**. I don't think so. My research program doesn't address that point directly because the regulations that have been promulgated for determining whether material is hazardous or not ame out after I wrote the original research proposal. But I don't elieve we are under that part of it. I think we are—the pipelining peration would come under the auspices of the Clean Water Act s opposed to RCRA.

Mr. **Florio**. What happens if in fact you are not discharging into surface water navigable water?

Dr. **Moore**. If you are not discharging into the surface water, hen there would be no regulations as we think of them, to comply vith. In other words——

Mr. **Florio**. I think you are right. That sort of illustrates a great oid that conceivably there can be materials which are not appro-riately disposed of. If they are not disposed of in the surface water ystem, then there is no requirement upon you—not being critical f you—there is no requirement upon you to do anything?

Dr. **Moore**. Unless they would come under the auspices of the RCRA. In other words, if they are not hazardous material, then we vould not have regulations to comply with.

Mr. **Florio**. Gentlemen, I have no further questions. I think you ave been here most of the morning and I think you have determined what the tenor of the concern is of the committee, that is, he general lack of specificity with regard to appropriate regula-ions and how that will act upon contractual obligations and how hat ultimately will act upon the assurances of cost favorability.

Part of the rationale, and it was made reference to by a couple of eople—part of the rationale for going forward in this area is the competition, allegedly, the price opportunities for consumers that may require, may come from this new industry. Many of us are concerned that those things may never materialize because nobody knows what the legitimate costs of the industry are because of a lot of imponderables. Of course, the less tangible social cost in terms of impact on water, impact upon health with regard to disposal, things of that sort.

This has been a helpful hearing to me and I know I share Mr. Madigan's thought this has been helpful and this committee in-tends to play a role on the floor in the debate when this bill is brought to the floor, I understand in the near future.

We appreciate your cooperation and look forward to working with you in the future.

Mr. **Skedgell**. Thank you, Mr. Chairman.

Mr. **Florio**. The committee stands adjourned.

[The following statement and letter were received for the record:]

National
Farmers Union

Statement of

Robert J. Mullins
Assistant Director of Legislative Services
National Farmers Union

Before the
Energy and Natural Resources Committee
Subcommittee on Public Lands and Resources
United States Senate

On

S. 707 and S. 3046
"Coal Pipeline Acts"

May 25, 1978

Mr. Chairman and Members of the Subcommittee. I am Robert J. Mullins, Assistant Director of Legislative Services, National Farmers Union, 1012 - 14th Street, N.W., Washington, D.C. I appreciate the opportunity to appear before this Subcommittee and present the views of the farmer and rancher members of the National Farmers Union, on the two bills under consideration by the Subcommittee -- S. 707 and S. 3046, the "Coal Pipeline Acts".

Farmers and ranchers, particularly in our Western states, have a direct and understandably deep concern over the actions that this Subcommittee and the Congress will take regarding the future construction of coal slurry pipelines.

The problems facing this Subcommittee are not easy ones to resolve. Your decisions will have long-range impacts on the future development and economic viability of the West. Concerning the legislation before us today, I will address myself to the following issues which, from our perspective are significant ones which must be resolved: Water policy, water rights, transportation policy, energy development and eminent domain.

These are issues which will directly impact upon the agricultural producers of the region if the decision to proceed with federal sanctioning of the construction of coal slurry pipelines is approved.

● Suite [illegible], 1012 14th Street, N.W., Washington, D.C. [illegible] – Phone [illegible]

WATER POLICY

Water is the key to the continued development and prosperity of our Western states. Agriculture, additional energy resource development, industrial development, maintenance of natural resources and recreational areas all demand a reliable and stable supply of water. In its recently completed study, "A Technology Assessment of Coal Slurry Pipelines", March, 1978, The Office of Technology Assessment concluded:

> "In each of the potential coal slurry pipeline areas except Tennessee demand projected for the 1985 - 2000 period exceeds the legally available supply." (p.90)

While offering very good data in its study of the feasibility of coal slurry pipelines, the report falls short of being an objective, all-inclusive study of the overall effects of such pipelines originating in the semi-arid regions of the West. The report fails to recognize that agriculture is and will continue to play a vital role in the economies of the affected states, not to mention providing the major portion of our nation's wheat, cattle and small grains supply. The report also states:

> "If one ignores other uses of water as a resource, effects upon flow rate, dissolved oxygen concentration, salinity, waste assimilative capacity and other water quality parameters would probably not be measurable." (p.89) (Emphasis added by author.)

I do not intend to discredit the OTA report as a significant scientific document, I am suggesting however, that it was done in a vacuum, excluding factors of the real world and the people who live there.

The report continues:

> "...the current drought is dramatizing the scarcity of water in the West at the same time that plans for increased energy development, including mining, electric power generation, coal gasification and liquefaction, and shale oil exploitation, all would require relatively large increases in consumption of the region's water." (pp.89-90)

Further the report goes on to say:

> "The uncertainty arises (of sufficient water) when future coal slurry pipeline water use is contrasted

> with future alternative water uses. Future alternative water uses include present municipal and agricultural uses plus projected increased municipal, agricultural, industrial and energy-related uses." (p.99)

Concluding:

> "It is impossible to identify the specific beneficial uses which would compete with coal slurry pipelines in the face of future deficits." (p.99)

What about food production....is this a specific beneficial use?

If it were only one pipeline we were dealing with, the problems of water utilization and availability could possibly be overcome, but we are not just talking about one pipeline. The OTA study itself identifies five potential lines: The ETSI line from Gillette, Wyoming to Arkansas and Louisiana; the Montana to Houston line; the Houston Natural Gas Company pipeline from Colorado to Houston; the Nevada Power line from Alton, Utah to Las Vegas, Nevada; and the Gulf Interstate Northwest Pipeline from Gillette to the Oregon/Washington region.

The cumulative effect of these five lines would require, at a minimum, an estimated 150,000 acre feet of water annually.

It has been suggested that one way to overcome the depletion of the water resources in the western coal producing areas would be to recycle and reuse the recovered water. One proposal would be to return the water via pipeline back to the original source area. This, of course, is technologically feasible, but I certainly question the economics of pumping water from Arkansas and Louisiana back uphill to Montana and Wyoming, with the average increase in altitude from 600 feet above sea level to 2,500 feet above sea level over a 1,000 mile plus route. Such a recycling system would more than double the cost of such a pipeline system. Are the proponents of such pipeline systems willing to absorb this additional cost, or will it be passed on to end users at both endlines of the pipeline? These are questions which must be answered.

The overall effect of exploiting Western water to transport coal will have serious economic and social impacts in the West. We must also take into consideration the fact that although the resources, coal and water, are drained and mined from these regions, little or no benefit will accrue to the region, although they will bear the burden socially, economically and environmentally, to provide benefits to others thousands of miles away. This is a "Rob Peter to Pay Paul" proposition.

National Farmers Union's position on the coal slurry pipeline issue is quite clear:

> "We oppose the movement of any water for the purpose of a coal-slurry pipeline or similar venture, unless a method can be developed to return equal quality and equal quantity of water to the original area from which it is taken."

As I have stated previously, the technology is available to achieve this goal, but its practicality is certainly questionable.

Furthermore, National Farmers Union's water policy states:

> "Water policy is inseparable from energy and agricultural policy. We urge adoption of the following order of preference in water use: (a) domestic and municipal consumption; (b) farming and ranching, including groundwater recharge; (c) hydroelectric uses; (d) navigation; (e) industrial consumption, (f) wildlife and recreation.
>
> "We favor a federal water policy that would minimize disposal and encourage recycling...
>
> "Prior to the exportation of any water, an environmental and economic impact statement must be made to determine the effect on agriculture."

WATER RIGHTS

Although the proposed legislation before the Subcommittee expressly prohibits the use of eminent domain for access to water and water supplies, there are certain legal and constitutional questions involved which could have significant impact on a state's ability to plan its growth and water allocation system. Several of the significant issues include:

1. The right of a state to give preference to certain types of water use within its boundaries;
2. The restriction of some states on the exportation of water outside the state boundaries;

3. Traditional water rights;
4. The relationship between state and federal laws regarding water use laws.

As the OTA report points out:

> "The Federal government has ample power under the Constitution to assure adequate water supplies to a slurry pipeline, State restrictions notwithstanding. That authority derives primarily from the commerce and property clauses of the Constitution...moreover, there is judicial precedent in support of the pre-emption doctrine, i.e., where there is a declared federal interest in a policy, state law cannot be permitted to contravene that policy." (p.20)

In other words, a state's right to control its surface water is subject to federal willingness to refrain from such control. A coal slurry pipeline operator with a federal permit could probably go to court to get the federal government to intervene if a state refused water for the pipeline.

The Administration has set the stage for such pre-emption of state's water rights. In his testimony before this Subcommittee last week, the Deputy Secretary of the Department of Energy, John F. O'Leary, reiterated four times in his statement the groundwork for court intervention:

> Page 1. Coal slurry pipelines "are in the national interest."
>
> Page 4. "It is our view that without the ability of slurry pipelines to obtain 'eminent domain' authority, an artificial barrier results which arbitrarily denies the development of this transportation mode, even when it would otherwise be in the public interest to allow this development."
>
> Page 6. "Although we agree that in many cases it is physically possible for the anticipated increases in coal production to be moved to market by rail, we believe that when an alternative mode of transportation is in the public interest, that mode of transportation should be encouraged. The recently issued study on these pipelines by the Office of Technology Assessment supports our view that the public interest would be best served if 'eminent domain' authority were made available to coal slurry pipelines."

tate's water laws would be honored, the Courts in their interpre-
ation of "public and national interests" suggests that adminis-
rative promises and even Congressional intent are not sufficient
o protect those state's waters.

TRANSPORTATION POLICY

An extremely important question relative to the federal sanc-
ioning of construction of coal slurry pipelines is the effect
uch pipelines will have on the financial security of the Western
ailroads, and their ability to provide services to shippers in
reas where they would otherwise lose a significant portion of the
oal transportation market.

In passing the Railroad Revitalization and Regulatory Reform
ct of 1977 (the 4-R Act) the Congress declared:

> "It is the purpose of the Congress in this Act to provide the means to rehabilitate and maintain the physical facilities, improve the operation and structure, and restore the financial security of the railroad system of the United States, and to promote the revitalization of such railway system, so that this mode of transportation will remain viable in the private sector and will be able to provide energy-efficient, ecologically compatible transportation services with greater efficiency, effectiveness and economy."

The question now before this Subcommittee and the Congress is:

Will granting the right of eminent domain and providing federal sanctions for the construction of a major competing means of transporting coal move toward the expressed intent of Congress in the 4-R Act, or will it thwart that attempt?

Evidently, from the testimony received by this Subcommittee from the Administration, they are ready to scuttle Congressional action to revitalize the Nation's rail system, at least in the West.

The Upper Midwest Council in its study, "Northern Great Plains Coal: Conflicts and Options in Decision Making", concludes in its examination of coal transportation that,

> "Experience has shown that existing rail systems moving coal from the Northern Great Plains can expand services significantly. In 1974, Burlington Northern, Inc.,

> shipped nearly 19 million tons of coal from the West, in 1975, about 29 million tons. By 1980, Burlington Northern projects it will move more than 142 million tons of coal from the West.
>
> "Questions have been raised relating to the rail industry's ability to expand its systems and services to meet future demands for coal movement, but there clearly is no evidence that this cannot be done."

The Council's report goes on to say:

> "Even if the rail industry could not do the job potentially demanded of it, this would not, in itself, lay a strong base for developing slurry pipelines...."

We view the prospects for developing a national energy plan based on increased utilization of coal generation plants and industrial conversion, and revitalization of the entire rail network as being compatible, energy-related goals. By providing the railroads with a long-term market for hauling coal, needed capital would flow into the rail system which would benefit all shippers not just the coal users. Agriculture needs a strong and economically viable rail system. Railroads play a vital part in the transportation of agriculturally-related goods, both input items and produce. However, with the lack of capital needed by the railroads to improve roadbeds, rolling stock and additional services, transportation of agricultural input items and farm commodities will continue to suffer to the detriment of the producer and the consumer. We can only assume, that under the 4-R Act, and with the additional capital generated by the transportation of coal, that the railroads will be more responsible and diligent in meeting the transportation needs of all their customers.

Coal slurry advocates maintain that pipelines will provide a more economical method of transporting coal than the railroads can, thereby implying that the ultimate consumers of electrical power or coal for industrial use will pay less. This assumption is certainly open to question.

It also makes little economic sense to create, at the consumers' expense, a duplicate, one commodity-one point transportation system.

Not only will the construction/operator/owners of the pipelines receive a generous return on their investment, guaranteed by take-or-pay contracts, the cost of constructing the pipeline, transporting the coal and guaranteeing the profit will be borne by the consumer.

Granted, the increased freight rates charged by the railroads will be paid by the consumer, but not to the extent of having to pay for an entirely new transportation system, capable of serving only a limited number of customers. What else can a slurry line transport? Grain, hogs, barbed wire, cattle, tractors, trucks?

Where there are alternatives to the slurry system (rail and transmission lines) and no demonstrated need for another competing transportation system, the potential risks; economic, social and environmental, are simply too great to justify the possible benefits. Delaying a decision to construct such systems now with federal sanctions, does not foreclose the options in the future, if the already in-place rail system cannot adequately handle the increased demand for coal.

NATIONAL ENERGY POLICY

The National Energy Plan currently being drafted by the Congress calls for an ever-increasing dependence on coal to replace diminishing supplies and escalating prices of other fossil fuels. 1976 production and consumption levels of coal in the United States totaled 671 million tons and 599 million tons respectively. By 1985, under the plan, production should increase to 1.265 billion tons and consumption should increase to 1.175 billion tons annually, a significant increase in our dependence upon coal for electrical generation and other industrial uses.

This increased development in the use of coal, particularly western coal, creates some serious questions on trade-offs, economic versus environmental concerns, as they affect the Western states. Certainly, the increased demand for coal from this region will increase the pressure to mine on agricultural lands, increase the pressure to use more and more water, increase community service needs and cause serious degradation of the environment. Any new transportation system which accelerates or increases these problems should not be employed.

By 1985, the major electric utilities energy consumption will come from coal (on a BTU basis approximately 53.5 percent). Additionally, government reports have indicated that there are approximately 3,500 major fuel burning plants which may convert to coal as their primary source of energy. These plants are not concentrated in any one region of the country, rather, they are widely disbursed, compounding the transportation and delivery problem.

Governor Herschler, in his testimony before this Subcommittee last week, stated very succinctly the problem faced by western states:

> "It is possible that the provisions recognizing state water rights might be ignored by the courts, as happened in Arizona v. California, 373 U.S. 546 (1963). The Court ruled that the Secretary of the Interior was not bound to follow state water laws, despite Congressional direction to the contrary.
>
> "States may also be faced with rulings overthrowing their attempts to prohibit or restrict the shipment of water outside the state, as in City of Altus v. Carr, 255 F. Supp. 828 (W.D. Texas, 1966), affirmed Mem. 385 U.S. 35 (1966).
>
> "I appreciate the Congressional concern for protecting state laws, as manifested in certain provisions of S. 3046. However, in light of various court decisions, I doubt that there is any language that could guarantee the retention of state authority. It appears that when a federal court decides that a federally sanctioned program is in the national interest and should be carried out even in the face of state laws to the contrary, it will not matter what kind of language is contained in the Congressional authorization with respect to state's rights."

We certainly concur with the Governor's statement, and share his concern for the right of the states to protect one of their most precious resources -- water.

Furthermore, the OTA report states on page 20 that:

> "...the, 'First Iowa Hydroelectric Cooperative vs. Federal Power Commission case suggests that the courts may rule that federal certification of a coal slurry pipeline will negate state attempts to restrict unallocated water to the project even though federal statutes seem to reserve control over water to the states. To the extent the law is uncertain, the proponent of a coal slurry pipeline who has been unable to obtain rights to a state water may seek to force such access through litigation in the Federal courts."

Notwithstanding the statement, also before this Subcommittee last week, of Assistant Secretary of Interior Guy Martin, that

No single slurry pipeline could be built to serve even a region, because of the wide geographic dispersion and varying amounts of coal required. Railroads can and do provide such transportation flexibility.

Similarly, there are no areas of the country, today, which could utilize singly, the amount of coal forecast to be transported by the Wyoming-Arkansas line. Environmental Protection Agency regulations and the Arkansas state legislature recently forbid construction of such a massive energy-park in that state. Furthermore, distribution of the coal from the mainline to feeder lines would significantly increase the cost of delivery and in turn increase the cost of electricity to consumers. Our national energy policy, turning to greater reliance upon coal and the diversity in location of generating and industrial sites, makes rail transportation of coal a logical partner in supplying this energy need. Since almost all major industrial sites and power plants are located on or adjacent to rail lines, no significant increases in construction will need occur.

EMINENT DOMAIN

Another issue which is of great concern to many farmers and ranchers is the effect of granting the right of federal eminent domain for construction of the proposed coal slurry pipelines over private property. The nation's natural gas pipeline system was constructed with the use of federal eminent domain powers. However the other major pipeline systems, oil and fertilizer, as well as electrical transmission lines and many railroads were constructed under state eminent domain authority. Only, once, for a brief two-year period, did the oil piplelines have the authority to utilize the right of federal eminent domain. Although no one questions the right and authority of the federal government to grant this right of condemnation to a non-governmental entity, the point is, such a policy power must only be granted when there is an overwhelmingly proven public need. No such "overwhelming public interest need" has been demonstrated by the slurry pipeline advocates.

Granting the right of federal eminent domain for the construction of slurry pipelines is only a part of a much greater problem facing farmers and ranchers all across the country.

Currently, landowners are engaged in bitter struggles to protect their property in several states which have granted the right of eminent domain to power companies to build either transmission lines or pipelines. Many perceive the struggle as one phase of a battle in which "in the name of energy any measures are acceptable."

The proposed Wyoming to Texas slurry pipeline would traverse six states and forty-five counties. This one pipeline alone would, conservatively, disturb 14,040 acres, if we are to assume that the pipeline would utilize a 100 foot right-of-way. The ETSI pipeline would traverse five states and run roughly parallel to the Wyoming/Texas line through three of those states, again requiring a substantial amount of land to be utilized for its construction, maintenance and operation.

We are not simply talking about the effect of one pipeline. The legislation this Subcommittee is considering will set legal precedents for those lines already planned and possibly others in the future. This legislation will allow the creation of a vast network of slurry pipelines, with the right to condemn private property, not for the public benefit, but for private profit-making.

As I said earlier, the condemnation of lands for the slurry lines is only a part of a much larger problem involving energy-related rights-of-way for construction of powerlines, powerplants, and pipelines.

A recently released fact sheet by the Environemental Policy Center highlights some of the severe implications of energy siting and construction problems. I quote from that report:

> "POWERLINES
>
> "According to an August 1977 Federal Power Commission figure, approximately 42,500 circuit miles of transmission line 69Kv and greater are planned for construction in the U.S. by 1982....The electric utility industry, which assumes a doubling of electric power demand every 10 years, projects that new transmission lines will require 1.5 million acres of land for every 100,000 miles of transmission line - a rate it expects to repeat through the remainder of this century.
>
> "PIPELINES
>
> "According to the January 1978 issue of a trade journal commonly known as "Pipeline News", 10,200 miles of new energy-related pipeline has been planned for construction in 1978. This figure includes about 5,400 miles of new natural gas lines, 2,200 miles new product and coal slurry lines, and 2,600 miles of new crude oil

> line...The Northern Pipeline, for example, a proposed crude oil pipeline in the Midwest, would cross 25 agricultural counties in western Illinois, eastern Iowa and southern Minnesota.
>
> "POWERPLANTS
>
> "The Federal government has projected a need for an additional 390,000 megawatts of electric generating capacity by 1985. New and expanded powerplant facilities during this period could require about 320,000 acres of land nationally. By the year 2000, this powerplant land requirement could increase to as much as 1 million acres..."

Loss and disruption of agricultural lands has become such a great concern that there is now pending in the Congress a bill which would require pipeline sitings to avoid, if at all possible, the use of agricultural lands. In introducing this legislation, Representative Blouin said:

> "I have introduced this legislation because of the adverse impact pipelines have on America's prime agricultural land. In my own state of Iowa, pipelines cross farmland at an angle, cutting tile drainage systems, disrupting farm operations, and leaving a strip of soil that has been altered deeply, and often permanently. While Americans are becoming more aware of our limited energy resources, we must begin to recognize that land is also a finite resource. In this country alone, five million acres of agricultural land are lost to some form of urbanization every year. At least one-third of this is prime farmland. Our present need for new sources of energy does not justify a pipeline route through productive farmland, especially when other route alternatives exist - route alternatives that oil and gas companies should be required to explore. My legislation establishes a prioritised list of route alternatives beginning with abandoned railroad right-of-way, highway right-of-way, parcel boundaries, nonarable land and ending with arable land..."

The point I want to make to this Subcommittee is that federal sanctioning of these pipelines will only exacerbate the problem and leave the states virtually powerless to establish cogent standards for the use of their lands.

Unless, and until, there is a demonstrated public need for federal sanctioning of the construction of coal slurry pipelines, the right of these lines to be granted federal eminent domain power must be withheld.

CONCLUSION

There are, of course, many other areas of concern which must be taken into account when considering the effects of construction of slurry pipelines, many of which cannot be measured from a cost/benefit standpoint. There are social implications, employment implications and environmental impacts, concerns which will vary with one's particular perspective, whether he is a farmer whose land is dissected by the line, or an investment banker on Market Street in San Francisco.

Mr. Chairman, I believe we have demonstrated that there is, at this time, no reason to enact this legislation from either a transportation standpoint, energy policy standpoint, and certainly not from the standpoint of exacerbating an already untolerable land diversion problem.

Thank you.

State of Montana
Office of The Governor
Helena 59601

THOMAS L. JUDGE
GOVERNOR

August 25, 1980

Honorable James J. Florio, Chairman
Subcommittee on Transportation and Commerce
Committee on Interstate and Foreign Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Florio:

It has come to my attention that your subcommittee has scheduled a hearing August 28, 1980, on coal slurry pipeline legislation now pending in the House, H.R. 6879 and H.R. 7982.

Unfortunately, we have had no opportunity to review either of these bills, although we did review H.R. 4370 before it was marked up. Consequently, I have no specific comments on the two bills under consideration. However, there are a number of general comments that are applicable to any coal slurry pipeline legislation:

A. We must first ensure the health of a competitive railroad system. Building or even approving coal slurry pipelines now could jeopardize that system.

B. Montana must have assurances that federal coal slurry legislation will require compliance with state water rights, water right procedures and facility siting procedures and policies. The state must have the right to say no to a proposed pipeline, and to prescribe the conditions under which it will say yes.

C. Before our state legislature can consider allowing coal slurry pipelines, it must have reliable information to determine the probable effects on:

1. water supplies
2. environment
3. railroads
4. net energy balance, relative to alternatives.

D. More emphasis must be given to developing alternative slurry technologies. The use of water as a conveyance liquid may be an acceptable interim measure, but it is inappropriate and inadvisable over the long term, especially in the semi-arid west where competition for water is increasing daily.

E. The development of coal slurry pipelines will continue our reliance on fossil fuels. Before that happens, we in Montana feel the nation must be committed to a transition to dependence on conservation and renewable energy resources.

I regret that I am unable to appear at the hearing on the 28th, but would appreciate the Subcommittee's consideration of these comments.

Sincerely,

Thomas L. Judge

THOMAS L. JUDGE
Governor

[Whereupon, at 1:15 p.m., the subcommittee was adjourned.]

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